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A RESEARCH AND DEVELOPMENT ACTIVITY RELATED TO HIGH PRIORITY AREAS IN SCHOOL PERSONNEL ADMINISTRATION.
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A RESEARCH AND DEVELOPMENT ACTIVITY WAS CONDUCTED (1) TO NARROW AND BRIDGE THE GAP BETWEEN EXISTING RESEARCH AND PRACTICE IN SCHOOL PERSONNEL ADMINISTRATION AND (2) TO IDENTIFY NEEDED RESEARCH. THE 6-DAY SEMINAR, WHICH WAS CONDUCTED IN NOVEMBER 1964 FOR 30 PARTICIPANTS SERVED AS THE VEHICLE FOR ACCOMPLISHING THE OBJECTIVES. FIVE MAJOR AREAS OF NEEDED RESEARCH WERE IDENTIFIED--(1) STAFF PARTICIPATION IN POLICY MAKING AND PLANNING, (2) LEADERSHIP DEVELOPMENT AND SELECTION, (3) TEACHER ORGANIZATION ROLE AND RELATIONSHIPS, (4) TEACHER MORALE AND JOB SATISFACTION, AND (5) CONCEPTUAL FRAMEWORK IN SCHOOL PERSONNEL ADMINISTRATION. (AL)

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A RESEARCH AND DEVELOPMENT ACTIVITY RELATED TO HIGH PRIORITY AREAS IN SCHOOL PERSONNEL ADMINISTRATION

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PREFACE AND ACKNOWLEDGMENTS

This report is the result of extensive study in selected areas of school personnel administration. The material, findings and research contributions have all grown out of the thinking and activities of many individuals and several agencies. It is difficult to acknowledge all of the splendid assistance received by the investigators; however, to the many persons who helped, but are not mentioned here for reasons of limited space, the investigators express their gratitude.

In the preliminary stages of the project, Dean G. D. McGrath of the Arizona State University College of Education, Dr. Charles O. Fitzwater, and Dr. James P. Steffensen of the U. S. Office of Education offered much assistance and encouragement. Dr. Glenn C. Boerrigter of the Cooperative Research Branch of the USOE made many helpful suggestions concerning the project in its early stages. The financial support of the USOE made the research project possible.

The investigators are indebted to a number of graduate students for their service, and to the clerical and logistics persons who worked with the staff in conducting the research project.

The clerical load of preparing the application fell on Mrs. Alma Hertwick and Miss Valmarca Hicks, secretaries in the Bureau of Educational Research and Services, and Mrs. Allis H. Moore, wife of the principal investigator. We are grateful for their assistance.

The success of the seminar, which was the core of much of the research effort, was largely due to the outstanding quality of the seminar participants and the consultants. These persons are listed in Appendix III, and we are extremely grateful to them.

One of the services for which the investigators are deeply indebted is the work done by the research assistants, E. Melvin Zinser and William K. Poston, Jr. Their efforts in supervising the review of research, assisting during the seminar and preparing the final report were especially valuable.

CHAPTER I

THE PROBLEM

Introduction

School personnel administration shares with many other fields, such as military, business, and industrial personnel administration, a growing need for an appreciation of research. Although research has lagged, research activity in personnel administration is currently seen as an important and necessary function. The extension of knowledge is vital for the continued development and improvement of practices in personnel administration, and the practitioner must use research for determining direction and securing a basis for action.

Personnel research has as its ultimate objective the improvement of the teaching-learning situation in the schools. Every aspect of the personnel activity is the proper province of personnel research aimed at the improvement of school functioning. Gathering information through the research process in school personnel administration is the means for gaining knowledge and better understanding of cause and effect relationships that are necessary to prediction and improved operation.

The central problem of this research and development activity was presented and developed to add to the improvement of school personnel administration through the research process. This chapter includes a statement of the problem, the objectives of the study, a justification of the study, and the delimitations of the problem.

Statement of the Problem

The primary purpose of this activity was to find techniques of bridging the gap between existing pertinent research, especially in the behavioral sciences, and typical school personnel administrative practice. For the purposes of this investigation the following three high priority areas were selected:

1. Staff personnel services
2. Staff relationships
3. Stresses and conflicts

These areas were chosen because all three relate significantly to current aspects of staff personnel administration.

Objectives

The objectives of this project were defined as follows:

1. To determine possible techniques of bridging the gap between existing research and practice in school personnel administration.
2. To identify needed research that will serve to focus continuing attention on the importance and means of narrowing the gap between research and practice.

The writings and research of numerous authorities have served to emphasize the pertinence of the objectives of this investigation. The gap between research and practice was found to exist to a large extent in the areas delineated above. Numerous writers have referred to the lag between research and practice. Van Dalen (8) confirmed a twenty-five-year lag between research findings and their applications as commonplace in schools. Van Dalen also mentioned that some studies never receive proper consideration. Mouly (5) referred to "...the dual lag which exists between educational research as we know it should be conducted, as it is conducted, and as it is applied in the classroom." Lazarsfeld and Sieber (4) emphasized that "...many school practitioners are recalcitrant concerning research findings which could be of practical value." The detrimental effect of the above attitude on research was pointed out by Lazarsfeld and Sieber since a lack of interest in research on the part of the practitioner discourages new effort, and research results that are not implemented in schools cannot be evaluated.

Perhaps the most notable attempt to give direction to research in the field of educational administration and utilize the findings of the behavioral sciences is the writings of Daniel Griffiths. Griffiths (3) was concerned that much of the content within the field was composed of "promising practices," folklore, and testimonials of successful administrators interspersed with a few research findings from a few areas in education. The findings of research in the behavioral sciences were just being introduced into the literature of educational administration. The need to illuminate and accommodate the assortment of research from the behavioral sciences was emphasized. Bretsch (1) in discussing technical areas of specialized learnings of staff personnel administrators, listed as number one--the knowledge, understanding and skill in applying research findings as they relate to specific tasks, e.g., interviewing. Other writers, such as Travers (7), indicated that education must draw heavily on what has been learned in related fields. Psychology, he noted, formed an important part of the background for educational research but other behavioral sciences also provide pertinent findings. A recent publication of the National Society for the Study of Education (6) was devoted entirely to educational administration and the behavioral sciences.

Both Griffiths (3) and Brownell (2) were concerned with the unawareness or the unquestioning, uncritical manner on the part of researchers in education toward previous research. Griffiths indicated that this was possibly due to the lack of summaries of research in our field. He also noted that in order to bring about a change in an organization a sequence that is firmly rooted in research is normally followed. We might be able to bring better research abilities to bear on our problems by assigning the highest priority to retooling personnel who are now doing research or should be doing research. He also indicated that the best way to change people is to make an active effort to do so, and stated that the seminar approach appears to be the logical way to start. The literature abounds with examples of organizations, such as the Social Science Research Council, that have utilized institutes and seminars extensively to acquaint their personnel with new knowledge in various areas directly related to their operation.

The objectives of this investigation were designed to establish a basis for eliminating the aforementioned shortcomings in the relationship between research and practice. Bridging the gap between research and practice was perceived to encompass specific measures necessary to improve school staff personnel administration by the greater utilization of research findings which are pertinent. The gap was defined as the hiatus or non-use situation between said findings and practice. The objectives were also designed to facilitate the identification of means to widen the horizons in research knowledge for more adequate use by practitioners in school personnel administration. The need for additional research in the areas listed above was investigated, and this activity was subsequently structured to identify future research needs in staff personnel administration.

Delimitations

The high priority areas listed above provided the basis for initiating the investigation and were expanded to include other aspects of school personnel administration. The area of staff personnel services included such sub-topics as: (1) a conceptual framework for school personnel administration, (2) leadership development and selection, (3) the source, dispersal, and use of authority, and (4) the determination of adequate and balanced staffing of the public school task.

The area of staff relationships included such sub-topics as: (1) morale considerations in school personnel administration, (2) policies and procedures with respect to working agreements and relationships, and (3) staff participation in policy making and planning including board relationships. In the area of stresses and conflicts in school personnel administration, the sub-topics for consideration were: (1) sanctions and strikes and similar breakdowns in school personnel administration, (2) the effects of criticism and pressures on staff behavior and effectiveness, and (3) the role and relationships of unions and professional organizations in school personnel administration.

Subsequent to a preliminary analysis, the specific areas selected for inclusion in the study were five in number. The delimited topics for consideration were as follows:

1. Conceptual framework for school personnel administration
2. Teacher morale considerations in school personnel administration
3. Staff participation in policy making and planning
4. Role and relationships of unions and professional organizations
5. Leadership development and selection

These topics, selected in the process of delimitation, were the high priority areas in school personnel administration which formed the nucleus for this research and development activity.

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CHAPTER II

RELATED RESEARCH

The review of research in the five identified areas was accomplished in two phases. The first of these phases involved an extensive survey of the available literature prior to the development activity described in Chapter III. Sources utilized included government publications; research studies; research abstracting services; research encyclopedias; professional journals and periodicals; published volumes and texts; indexes; and publications, bibliographies, and additional resources contributed by the principal investigator. Following the primary phase of surveying literature, all findings were accumulated and published in limited numbers (mimeographed) for the use of participants prior to the development activity. This 395-page volume established a basis for the secondary phase of the review of research. The primary survey of research literature proved to be a valuable aid to the effectiveness of the development activity, and was used as a framework for delimiting the original high priority areas in school personnel administration.

A survey of participants indicated the need for delimiting the scope of research to the five critical areas defined below and also pointed to the necessity for expanding the literature in the critical areas. Consequently, the secondary phase in the review of research literature involved a specialized investigation of research pertinent to the five areas. The contributions of development activity participants and additional sources, as well as sources used in the primary phase, were extensively surveyed. The following compendium of research is an outcome of the secondary phase, and is a condensation of the original literature.

The review of related research is organized into the five high priority areas obtained through delimitations of the broad areas in school personnel administration: (1) conceptual framework for school personnel administration, (2) teacher morale considerations, (3) staff participation in policy making and planning, (4) role and relationships of unions and professional organizations, and (5) leadership development and selection.

RESEARCH STUDIES IN LEADERSHIP DEVELOPMENT AND SELECTION

The leadership role is determined by the expectations of the leader and of other group members. Role behavior--what the leader actually does--therefore, becomes a resultant of what he and others think he ought to do, and what he can do in view of the kinds of behavior that are required and allowed.(33)

Stogdill (65) defines leadership as the process or act of influencing the activities of an organized group in its efforts toward goal setting and goal achievement. He views leadership as a function of the working relationship among group members who are coordinating their efforts for the accomplishment of a common task.

Leadership is not now considered so much an attribute of individuals as an aspect of organization, an interactional process by means of which the organization defines for each member his scope for action in making decisions, carrying out responsibilities, and enlisting the cooperation of others.(33)

Leadership Characteristics

Cartwright and Zander (11) in a review of research indicated that, in comparison with group norms, leaders are somewhat bigger, brighter, and better adjusted.

Gibb (24) reported on studies which give some evidence of leader superiority in physical characteristics, health, intelligence, verbal ability, self-confidence, initiative, persistence, ambition, dominance and amiability.

However, from a review of research findings Goode (25) concluded that there is no support for the thesis that the more intelligent is a leader, the better he is as a leader. He also found the relationship of either extroversion or introversion is extremely doubtful. He was in agreement with Gibb that above-average standing on a large number of qualities (well-roundedness) and language facility are criteria of executive ability. The effective leader has mental and emotional maturity, including healthy attitude, human understanding, and respect for authority; is self-motivated, sociable, tactful, courteous, and cooperative.

Lipham (43) found no significant differences between effective and ineffective administrators in characteristics of age, intelligence (effective somewhat higher), marital status, years of graduate study, years of classroom teaching experience, or years of experience as principal. He did find the effective principal to have stronger drives for purposeful activity, achievement, and advancement; greater social ability, a stronger feeling of security, and greater emotional control. Chenault (13) found that principals tended to be competitive.

Scott (61) found that sex, age, length of teaching experience, and number of positions held within the last ten years are not significantly related to the effectiveness of principals. He found that the type of school of which he has charge and (unlike Lipham's findings), the length of service as a principal are positively related to effectiveness.

Moore (48) compared the test results of trainees in administrative training programs with selection or non-selection as administrators. He found that the more successful trainees in terms of those selected or still considered for selection were higher in intelligence and exhibition, lower in authoritarianism and prejudice, and less aggressive.

Kimbrough (40) found that effective school administrators (a) demonstrate ability to identify and define critical educational problems, (b) are emotionally stable, and (c) are well informed about significant social, political, and economic trends and events which affect education.

Findings in an industrial study by Malo (44) showed that executives make a sharply defined distinction between the traits they attribute to promotable and nonpromotable individuals. The most significant traits were conjunctivity and intensity. Also significant were social ability, orientation to reality, drive for achievement, and superego integration.

Newsome and Gentry (51) in a study of value orientations, discovered that superintendents of Georgia schools were high in economic and religious value orientations and low in aesthetic and social orientations; that they were relatively high in authoritarianism, and that the degree of authoritarianism was negatively and significantly related to the logical consistency of the superintendents.

In a similar study of school principals, Cyphert (16) found Ohio principals were highest in religious orientation, followed in descending order by political, theoretical, economic, social and aesthetic orientation.

Kratz (41) found that principals were more strongly oriented toward their staffs than toward the community, but that those who were rated by their superiors as "good" were more strongly oriented to the community than were those rated "poor."

Wall (69) reported significant differences in attitude among administrators, teachers, and educational specialists. Specialists tend to be more democratic, liberal, and progressive than teachers or administrators. Teachers are more traditional, conservative, and authoritarian than either of the other groups. Administrators fall between the two groups in attitude.

Leadership Behavior

Several studies revealed a close relationship between effective leadership behavior and high performance in both dimensions identified by Halpin (31) as Consideration (leader's consideration for subordinates) and Initiating Structure (leader organizes and defines group activities and defines his relationship to the group).

Halpin (31), in a study of leadership behavior of school superintendents, found that both consideration and initiating structure are fundamental dimensions of leadership behavior. Keeler and Andrews (39) discovered that high scores by principals on these dimensions of leader behavior were related to the productivity of the school as measured by student achievement. Arkoff and Shears (2) found scores on these dimensions to be significantly related to acceptance or rejection of candidates for principalships and vice-principalships in the schools of Hawaii. Miklos (47) reported that high scores on the consideration and initiating dimensions were significantly associated with a high degree of teacher-principal agreement or expectation for the role of the principal. Evenson (19) found that superintendents, principals, and teachers agree that strong behavior in initiating structure and consideration is desirable. He did find that the three groups disagree when describing the principal's behavior, indicating that evaluation of the principal should not be done by either the superintendent or teachers alone.

Willower (70) reported that principals who demonstrated an ideographic leadership style (behavior which stresses the individuality of people) tend to regard teachers as professionals more than do those who use a nomothetic leadership style (behavior which stresses goal accomplishment and centralizes authority at the expense of the individual).

The type of behavior which characterizes the leader, Launer and others (42) found, is the making of interpretations about the situations and giving information on how to carry out the activity.

Kimbrough (40) concluded that the effective administrator instills close interpersonal relations with and among the groups and tenaciously follows the truth as opposed to expediency as a means of action.

Goode's (25) review of literature showed that technical and specialized knowledge is considerably less important than the ability to handle people, and the ability to make decisions and to reach objectives through organized effort.

Trends in the principal's role were identified from a review of literature by Frey (23) and Ranninger (56). Trends indicated were: from disjunctive detail toward entity of the principalship; from few to a greater variety of duties; from dictatorial direction to democratic involvement of staff; from lack of agreement to relative agreement on the major functional areas of the principal's job. It was pointed out that, whereas there is considerable agreement on the functions the principal should perform, there is much disagreement concerning the relative importance of these functions.

A study by Savage and Beem (58) revealed that the school administrator demonstrates more effective than ineffective behavior in the administration and organization of instruction and pupil services, and in the management of fiscal and business services. However, they showed more ineffective than effective behavior in school board-administrator relationships and, particularly, in the administration of staff personnel.

Carlson (10) found that a school superintendent's position in the social structure of fellow superintendents, defined in terms of his involvement and status, is important in explaining the rate of adoption of new educational practices within the school.

Chesler and others (14) reported that the degree of the principal's accuracy in perceiving the expectations and interests of his teachers was positively related to the staff's tendency to change.

A number of studies indicate a relationship between supervisory behavior and employee attitudes and performance. Fleishman (21) found low consideration and high initiative structure correlate with high grievances and turnover. Kahn and Katz (38) reported that supervisors of high-producing sections gave a larger proportion of their time to interpersonal aspects of their jobs and to planning than did supervisors of low-producing sections, and did not supervise as closely. A review of similar research studies (25) confirms these findings and indicates the more effective supervisor spends less time on paper work and more on supervisory functions; appears to be more employee-oriented; and develops better "team spirit" or group cohesiveness.

Day and Hamblin (18) found that close supervision, compared to general supervision, resulted in significant increases in agressive feelings toward the supervisor and co-workers, and in lower productivity. Punitive (angry ego-shattering reprimands) compared to non-punitive supervision resulted in lower productivity and verbal aggression, but no significant increases in agression toward co-workers.

Patchen (55), however, found that close supervision can help to produce high performance in situations in which subordinates perceive their supervisor as a rewarding figure and a team member rather than a punishing outsider.

Brown (7) discovered that student teachers placed under stress-producing supervision reacted in different ways. About one-half of the student teachers taught less effectively, about one-fourth were unaffected, and one-fourth actually improved their teaching performance. Deterioration of performance was positively related to the degree of neuroticism and scholastic aptitude. Brown concluded that the administrator must give attention to the differential needs and abilities of the teaching staff.

Leadership Role Conflicts

In an intensive analysis of superintendent-subordinate roles in school systems, Gross and others (28) found that (1) the school board member and the superintendent each assigned greater responsibility than the other to his own position; (2) the more consensus there was between the incumbents of two positions in the definitions of each others' roles, the more highly they rated one another's performance; (3) the more closely the non-professional superordinate conformed to standards of the profession, the greater the job satisfaction of the subordinate; (4) superintendents who have conforming school boards experience less worry than those who have non-conforming boards; (5) incumbents who perceived they were exposed to role conflict derived less job satisfaction from the position than those who did not perceive role conflicts; 88 per cent of the superintendents perceived they were exposed to role conflict in the area of salary schedules.

Gross (27) reported that many school board members who are well motivated have hazy notions about their jobs. Moreover, board members and superintendents frequently disagree over their respective rights and obligations.

Sletten (63) found that significant differences in opinion patterns between superintendents and board members occurred in 21 of 22 areas, and that as the school administrator becomes increasingly aware of what his role should be, as primarily defined by members of his professional group, the gulf between policy-makers and administrators widens.

Abbott (1) reported that board members who perceived their superintendents to be most similar to themselves in value orientations expressed significantly higher confidence in their superintendents than did board members who perceived their superintendents to be least similar.

Fisher (20) found that community residents prefer a school superintendent of high autonomy who is loyal to his teachers, but they believe superintendents to be persons of low autonomy who were loyal to the school board.

Osibov (54) observed extensive differences between professional and public perceptions of the functions of administration and the superintendent's on-the-job behavior, whereas Jerry (37) found a relatively high degree of agreement between the duties of superintendents which school board members believed to be important and the actual time allotted by superintendents to these duties.

Hencley (34) found that conflict patterns of superintendents exhibited three major tendencies. Superintendents (a) tended to believe that there were no differences between their own views and the views of others when, in reality, such differences existed; (b) were perceptive in that they accurately defined group expectations even though they did not concur with these expectations; and (c) tended to be trouble seeking, seeing conflicts where none existed. Hencley concluded that (a) superintendents are taking too much for granted in assuming that group expectations parallel their own on many issues; (b) value differences present major obstacles as superintendents attempt to unify and harmonize group expectations; (c) the difficulty that superintendents experience in appraising value patterns and motivating forces is clearly illustrated by their inability to perceive group and superintendent agreement on issues.

Halpin (31) found that, in the evaluation of leader behavior, superiors are more concerned with initiating structure whereas subordinates are more concerned with the consideration the leader extends to them. This difference in group attitudes confronts the leader with conflicting role expectations.

In a study of the relationship between the behavior of superintendents and principals Moser (49) found that both profess preference, in the order given, for (a) behavior which stresses goal accomplishment but which makes provision for individual need fulfillment (transactional); (b) behavior which stresses the individuality of people (ideographic); (c) behavior which stresses goal accomplishment and centralizes authority at the expense of the individual (nomothetic). Superintendents, however, see principals as more nomothetic, less transactional, and more ideographic than principals profess to be. Both superintendents and principals are more specific in their expectations for the principals' behavior than for the superintendents', presenting the superintendents with a wider latitude of behavior choice for carrying out their roles according to expectations.

Nimnicht (52) found that principals overestimate the difference between their views and the views of their superintendents. He ascribed this difficulty to faulty communication by the superintendents rather than misperceptions by the principal.

Jensen (36) discovered that few teachers accurately perceive the degree of agreement between themselves and their principals on teaching responsibilities, and concluded that principals are relatively unsuccessful in communicating their expectations to teachers. Thorin (66), on the other hand, found that the principal does not accurately perceive the role concept held for him by his teachers or his superintendent.

Willower (70) reported that younger principals, whether with ideographic or nomothetic orientation, tend to regard teachers as less professional than do older principals. The hypothesis was advanced that when the higher status role is threatened from below, the superior will minimize competency of subordinates.

Bidwell (4) found that the level of teacher satisfaction depends upon the teacher's expectation of how the administrator should behave, and whether or not this expectation was fulfilled, but not upon the nature of the expectation itself.

Conversely, Campbell (8) found that those teachers whose wants and needs were in agreement with the principal's expectations express significantly higher job satisfaction than those teachers whose wants are in conflict with the principal's definitions of the teacher's role. Similarly, Moyer (50) reported that the more alike members of a teaching group are in terms of their attitudes toward leadership, the more they are alike in amount of job satisfaction. Guba and Bidwell (29) concluded that all aspects of staff relations, effectiveness, satisfaction, and confidence bear a marked relationship to the extent to which the perceptions of expectations of behavior held by principals and teachers coincide. If the principal views the behavior of teachers in a markedly different manner from that in which the teachers themselves view their behavior, or if the teachers report that markedly different expectations are held by the principals from those which they themselves report holding, it is likely that there will be a breakdown in staff relations with a concomitant drop in levels of effectiveness, satisfaction, and confidence.

Rasmusson (57) found a high degree of agreement between principals and teachers on values in teaching; yet teachers tended to perceive their principals as holding much less liberal views than their own. He concluded that such discrepancies pose a potential threat to creative teaching. Turk (67), however, found that variations in certain types of values may create, rather than inhibit, social cohesion within the group. In a study of working relationships between student physicians and student nurses, he found that the more bureaucratic the physician the more likely he was to expect the nurse's role to be important, wide in scope, and autonomous; moreover, the more nonbureaucratic the nurse, the more likely she was to expect a role that was important, wide in scope, and autonomous of the physician's authority. Thus, the greatest team cohesion occurred where the superior and subordinate held different value orientations.

Chase (12) investigated teacher and parent expectations of the principal. He found that teachers and parents apparently judged the principal's effectiveness primarily on the basis of his personal relationship with them and the pupils. They failed to mention the principal's behavior in areas of supervision and improvement of curriculum or instruction.

Freehill and Ross (22) reported that parents indicated the real principal fell short of the ideal. Teachers saw fewer differences between the real and ideal principal, but rated the ideal principal so high on "helping teachers to know they are doing a good job," that the real principal fell short. Teachers valued the principal's capacity to "understand the broad objectives of the school program," and rated this trait highest for the real principal, placing it close to the ideal. Teachers valued principals who were cautious and democratic in making changes, and who were able to handle interpersonal relationships judiciously. Significantly, teachers did not emphasize the principal's ability to stimulate creative teaching.

Identification of Potential Administrators

Nunnery (53) concluded from the results of three separate studies which compared scores on mixed batteries of tests with the Tennessee Rating Guide (designed to distinguish between effective and ineffective school administrators) that there is no single instrument which can serve as a best predictor of effectiveness of a school administrator and that no instrument has been sufficiently validated by use of external criteria to justify its inclusion in the selection process for school administrators.

Boyce (5) compared the performance of elementary school principals from three school systems on five tests with evaluation of their professional effectiveness by their superiors. He found several relationships between the predictive instruments and the criterion measure. The Aesthetic and Religious scales of the Allport-Vernon-Lindzey Scale of Values and the Abasement and Nuturance factors of the Edwards Personal Preference Schedule yielded significant positive correlations with the effectiveness ratings by superiors.

In a study (60) to determine whether the professional performance of a principal can be predicted if his background and personality are known, it was found that women exchange more information with subordinates, outsiders, and superiors than men before making a decision; are more able or willing to provide leadership; and that they are regarded by teachers and superintendents as being easier to get along with. The conclusion was made that no test or formula can be used unerringly to select a successful principal.

Bessent (3) found that personality and sociometric measures were more effective predictors of administrative behavior than were measures of mental or verbal ability.

St. Clair (59) reported that a human predictor, using both objective and subjective information concerning an administrative candidate, can accurately predict certain global dimensions of behavior as well as specific behaviors and practices which the candidate will demonstrate as a school administrator.

Merrill (46) found administrators to be high in needs for deference, order, and endurance, and low in needs for exhibition, autonomy, and heterosexuality.

Stewart (64) found a high degree of agreement between personal characteristics that newly-selected principals perceived as responsible for their selection and the actual criteria for selection reported by their superintendents, whereas Davis (17) reported strong disagreement between these principals and their superintendents about the most important personal factors and criteria that were used in the selection of these principals.

Briner (6) discovered that superintendents appraised the qualifications of administrative candidates on the basis of three kinds of information: the physical and character image, levels of professional and personal potential, and levels of demonstrated professional and nonprofessional competence. The superintendents lacked a rational and systematic procedure for appraising the qualifications of candidates. The influence of attitudes on the selection of subordinates varied with each superintendent, but the superintendents' attitudes represented a continuum ranging from the closed to the open mind.

Tupes and others (68) conducted a study of role-playing situations in an Air Force officer candidate school. Scores for behavior in role-playing situations appeared to be related to future success as an Air Force officer and also were significantly related to personality trait ratings. The study indicated that the role-playing situation is a useful selection device, but not predictive enough of success to be used alone.

Both Davis (17) and Stewart (64) concluded that a need exists for a more adequate taxonomy of selection criteria for the development of selection policies, and for communication of these policies to school system personnel.

Administrative Training Programs

Grater (26) found that the establishment of a permissive, non-threatening psychological atmosphere in a leadership training group situation brought a reduction in the discrepancy score between the real and ideal self, and that the reduction was largely the result of a change in the real rather than the ideal self.

Hynes (35) studied personality structures of individuals to determine if it is difficult or impossible for them to behave in either a democratic or authoritarian manner. He concluded that personality measures and frequency of different types of behavior suggest that principals can learn to use either pattern of behavior.

Singer (62) reported that of all experiences in a management-training program, those which had the maximum participation produced the best learning and best results according to the participants' evaluation.

Guetzkow (30) said there are distinct differences in the intellectual tasks confronting the social scientist and the user of social science knowledge. He stated that experts needed for using knowledge are different from those needed for its discovery, and that a "social engineer" is needed as a middle man between the scientist and the practitioner. Drawing upon these ideas, Campbell and others (9) identified three roles: (a) the producer of knowledge, or scientist; (b) the developer of knowledge and of practice; and (c) the practitioner who directs the school or school systems. It was proposed that training programs recognize these roles.

Arkoff (2) developed an operational game which can be used to test hypotheses about the efficiency of organizational performance, a device used in executive development programs in business and industry, but not widely used in training educational administrators.

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RESEARCH STUDIES IN STAFF PARTICIPATION IN POLICY MAKING AND PLANNING

A significant number of researches have been conducted to determine the effects of employee participation in the making of policies and decisions of concern to them.

The overwhelming weight of evidence indicates that only positive benefits accrue to the organizations that provide for such participation.

With but one exception, all reviewed studies showed that employee participation or expectation to participate in policy making and planning contributed to high employee morale and satisfaction.

Researchers found that desirable changes of behavior are most likely to occur when individuals are involved in discussing the issues and reaching decisions, and that this behavior is of greater duration than in the situation of no involvement. They also found that increased production or efficiency followed increased employee participation in planning.

The studies revealed that teachers should and do participate frequently in policy making and decision making in areas of work that are closest to them and in matters that require frequent decisions.

The conclusions reached were that teacher participation is a method of establishing good staff relations and of developing a more efficient school; and that the system for participation is not important, provided it is adaptable to local conditions and is truly democratic.

Effect of Participation on Satisfaction and Morale

In an extensive study by Chase (7) the results showed that teachers who report opportunity to participate regularly and actively in making policies are much more likely to be enthusiastic about their school systems than those who report limited opportunity.

Bidwell (2) found that teacher satisfaction is directly related to the extent to which teachers participate in decision making as individuals or in groups, and satisfaction increases when current practices in decision making conform to the practices most acceptable to the teachers. His findings also indicated that teachers are most satisfied with administrators who fulfill the expectations of their staffs.

Moyer (16) found that the more the principal encourages teachers to be less dependent on him and more interdependent, the higher is the teacher satisfaction in the group.

Cornell (9) concluded that a teacher's expectation of sharing in administrative policy formation is a potent determiner of teacher satisfaction.

Carzo (6) compared performance and satisfaction of workers under highly restrictive organizational structure (no face-to-face contact; only written communication through a chain of command) and a loose structure (free association and communication). He found that those working in a loose structure derived greater satisfaction from their work.

Thompkins' (21) study of 43 high schools acknowledged to have good professional and personal relationships among staff members showed that the common element was sharing--every responsibility of school organization and operation was shared by co-workers.

In a morale study of school systems, Redefer (19) found that encouragement for faculty participation in policy making and planning existed in schools with high morale and was lacking in schools with low morale.

Harap (11) concluded that one significant cause for a lack of teacher morale is the absence of democratic administrative procedures and sharing in policy making.

From the results of a study of the effects of teacher participation in a large Midwestern school system, Bridges (5) reaches a conclusion different from other researchers reviewed. Contrary to expectation, he found that high participation did not engender more favorable attitudes toward the principal nor toward the work situation among teachers with higher need for independence, but was positively related to the extent to which principals supported teachers in their problems with parents and pupils.

Studies conducted in disciplines outside education stress the value of participation for the development of satisfaction and morale.

Morse (15) found, in a study of employees in a large-scale organization, that employees who report making decisions on their jobs are more often in the high or medium groups on job satisfaction.

Coch and French (8) found the rate of employee turnover and the degree of agression are inversely proportional to the amount of participation.

In a similar study, French found that increases in employee participation led to fewer symptoms of resistance and conflict with management.

Preston and Heintz (18) compared the effects on participants under participatory leadership (group participation in decision making) and under supervisory leadership (without group participation in decision making). Results showed that participatory subjects were more satisfied with group decisions, more often reported the task as interesting and meaningful, and were rated by their leaders as being more friendly.

Effect of Participation on Behavior and Production

Lewin (14) compared behavior after individual involvement in decision making with behavior after hearing a lecture only. He found that a greater change of behavior in the desired direction is achieved from group decision and that the behavior change is of longer duration.

In a similar study, Levine and Butler (13) found that knowledge of undesirable behavior alone is not sufficient to cause change in behavior, but that desirable behavior does follow group discussion and decision.

The study of Preston and Heintz (18), comparing the effect of participatory versus supervisory leadership, showed that participatory leadership is more effective in changing attitudes.

In an industrial study, Coch and French (8) compared the ability to make work changes among groups that (a) did not participate in planning, (b) participated through representation, and (c) had total group participation. The experiment showed that the rate of relearning is directly proportional to the amount of participation.

In a similar study, French (10) found that increases in employee participation led to increases in production.

Seashore's (12) major conclusion from the results of an employee study was that greater group cohesiveness (attraction to the group or resistance to leaving it) is associated with less anxiety, and with higher productivity when confidence in management is high; conversely, there is lower productivity when this confidence is lacking.

After a study of supervision and productivity in a life insurance company, researchers (20) concluded that supervisors of the high-producing sections differed from supervisors in low-producing sections in that they established certain general conditions for their employees and then permitted employees to work out details of when and how the work would be handled.

Indick, Georopolous, and Seashore (12) found that the effectiveness of group performance was related to the extent to which the superior asks subordinates their opinions about work problems, and the ease with which subordinates can get their views across to superiors.

Of all the studies reviewed, only Carzo's (6) indicated that there is not significant difference in ultimate efficiency of production of individuals under highly restrictive organizational structure and those under a loose structure.

The study of Cornell (9) pointed out that classroom performance is not correlated with the amount of time and energy devoted to administrative policy making, but does depend upon: (a) the extent to which teachers expect the administrator to share decisions (whether teachers actually participate or not); (b) the extent to which teachers feel they are given responsibility for sharing when they do participate in decision making; and (c) the extent to which teachers feel their participation is of genuine influence in making the decision.

Areas and Extent of Participation

Chase (7) reported that regular and active participation in preparation of salary schedules and in making policy for control of pupils was considered of the highest importance to satisfaction by well over three-fourths of all teachers who feel they have opportunity to participate in these matters.

Cornell (9) likewise found that teachers more frequently participated in matters closest to the teachers' sphere of influence (e.g., textbook selection) and in areas of policy which concerned relatively frequent decision (e.g., discipline) than in other areas.

A similar study (17) of the use of teachers' councils in New York City found that a majority of the teachers surveyed were interested, in descending orders of importance, in evaluating pupil progress (100 percent), preparing daily programs (68.4 percent) and salary schedules (68 percent), selecting textbooks (67.5 percent), building and evaluating courses of study (66.3 percent), selecting and administering tests (65.6 percent), and planning and conducting teachers meetings (62.6 percent). Actual participation in these areas ranged from 22 to 76 percent (except evaluating pupil progress, 100 percent).

From the results of a study of participation in the schools of San Diego County, Woods (22) concluded that group discussion should be used in solving problems of budgeting, salaries, evaluation, curriculum, teacher selection, and equipment and supply orders; but that group action is not needed in insurance, legal rulings, building maintenance, and acquiring new school sites.

Factors Influencing Participation

Blumberg's (3) survey of school teachers indicated that they felt teachers have frequently been "crushed" by administrators, have decided that it doesn't do any good to stand up and be counted and are victims of inferiority complexes.

Boardman (4) cites the following reasons for limiting teacher participation as ones given by principals: the teacher's time is limited by too heavy teaching loads, teachers are not prepared to participate except in specially selected areas of participation, line and staff organization centralizes authority in the principal, and the decisions of the staff must at some point be subject to approval of the principal. He found, however, that 95 percent of the administrators and 89 percent of the teachers reported that group planning and thinking was more constructive than individual planning and thinking, and the vast majority of teachers prefer that members of committees or of a representative council be chosen by free election by the staff rather than by appointment by the principal.

Cornell (9) found that the more "sociable" and "emotionally stable" teachers participated more in policy formation; that teachers more desirous of participating in administrative matters were those who were above average in professional attitude (as measured by the Minnesota Teacher Attitude Inventory); and that teacher participation was observed to take place in a variety of ways -- informal conversations, committee assignments, and special staff assignments for the assistance of principals, superintendents, or school boards.

Woods (22) found that staff members become involved in discussion voluntarily, automatically, and by representation.

General Conclusions About Participation

Thompkins (21) found that teacher participation in the formulation of school policy was reported by three-fourth of the schools as a method of establishing good staff relations. He concluded that the development of democratic administration takes considerable time and effort but is likely to be well worth while "if practice follows principle and both follow purpose."

Cornell (9) indicated caution by stating that participation may have beneficial effects in achieving the ends of the school if (a) time permits it,

(b) the cost of the process is not greater than the values brought by it, (c) it doesn't interfere with the equilibrium of the formal structure (e.g., undermine the authority of the administration or of officers in the administration), (d) adequate communication channels are provided and (e) teachers learn how to participate effectively.

Boardman's (4) study pointed out that schools using democratic practices were significantly better than those who did not use them in general administrative areas. He found that the exact nature of the organization for democratic participation in administration is not critical provided that it is simple, flexible, adapted to the needs of the faculty in the school, and truly democratic.

Woods (22) cited these primary purposes for involving personnel in administrative functions: getting ideas from personnel, communication, dividing the work load, promoting in-service training and professional growth, and encouraging individuals to write on problems of concern to them. He indicated that all people affected by a decision should have the opportunity to influence the nature of it, and concluded that the evidence of positive results from participation indicates that group processes have an increasingly important place in the function of public school administration.

One of the major implications of the findings of Addington (1) in a review of research on human relations was that school administrators should keep horizontal channels open to encourage joint problem solving among peers.

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RESEARCH STUDIES IN CONCEPTUAL FRAMEWORK FOR SCHOOL PERSONNEL ADMINISTRATION

The development of a conceptual framework for school personnel administration is relatively difficult to isolate. The overall aspects of school personnel administration relating to staff personnel services, staff relationships, and stresses and conflicts are generally incorporated into a particular matrix of organization. In this analysis, the outline of organization will include: descriptions of types of administrative structures with reference to effects; role expectations in personnel administration compared with actual practices; attitude regarding written policy and frequency of written policy; and general characteristics of the functions and practice of school personnel administration.

Kinds of Organizational Structure and Their Effects

In a study of 100 city school systems located in 43 states, Chase (7) interviewed superintendents and staff and surveyed records, policies, catalogs, guides, reports, and other materials to determine common practices in regard to organization and supervision in elementary education. Concerning organizational patterns, administrators appear to consider a particular pattern acceptable because other cities have made similar changes or cities nearby are so organized. After a study of the data from the 100 cities, it was possible to distinguish five patterns of organization: (a) planless organization, (b) plan of authority, (c) plan of individuals assuming major responsibility, (d) system-wide committee plan, and (e) plan of individual school as the center of exchange. Regardless of the size of city, some person is thought of as having overall responsibility for elementary education. Of 72 cities that reported specific organizational plans, all included teachers in all committee work, 68 cities reported principals as regular members, 57 cities use a member of the central staff, and 33 cities include parents.

Carzo (5) examined the effects of structure on groups required to make decisions on relatively complex problems, and investigated performances of groups organized under a highly restrictive (tight) structure against groups organized under loose (loose-written and loose-oral) structures.

The evidence from this study seems to indicate that different structures will initially have different effects on groups exposed to the same problem. All groups eventually reached approximately the same level of performance. Loosely structured groups seemed to have an advantage at the outset in the process of solving complex problems.

Halpin and Crofts (15) developed an "Organizational Climate Description Questionnaire" that portrayed the organizational climate of elementary schools. The instrument was used to analyze the climate of 71 elementary schools in six different regions of the United States, and a profile which depicts the schools' organizations was constructed from the scores. Six climates or types of organizations were identified: (a) the open climate characterized by social needs, satisfaction and task achievement, (b) the autonomous climate typified by low-control leadership and group action, (c) the controllable climate characterized as impersonal and highly task-oriented, (d) the familiar climate which is highly personal but under-controlled with low task-achievements, (e) the paternal climate characterized by constrained leadership and singular authority, and (f) the closed climate which has high levels of apathy and low needs, satisfaction and task-achievement.

Moyer (18) in a study of attitudes of teachers revealed that two kinds of leadership affect job-satisfaction of the staff: (a) leader-centered with emphasis upon an administrator's status, position, and prestige, and (b) follower-centered with responsibility and authority shared among all members of the faculty, based on individual competence and requirements of a particular situation. The implication is that greater effectiveness and satisfaction are accomplished when the leader is equipped with broad knowledge of the nature of his group which unifies and harmonizes group productivity. It points further to the importance of social and political ideology of a people as it reflects itself in human interaction.

Administrative Role Expectations

Conway (6) indicated that administrative decision-making has been changing to a group activity, but reflects qualities or systems in behavior, making administrators "closed" or "open." Open groups are those which are group-oriented, democratic, and flexible, but closed groups are leader-centered, authoritarian, and restrictive. Findings support the hypothesis that open groups perform more effectively than do closed groups in that open groups interact and share views for greater periods of time, are faster problem-solvers, and are more readily adaptable to change. The administrative behavior role in effective situations seemingly becomes more open and democratic.

Gross, Mason, and McEachern (13) explored the problems of concensus on role definition, conformity to expectations, and role-conflict resolution, with the major focus on the role of the superintendent. The role analysis included the elements of social location, behavior, and expectations with role defined as a set of expectations or evaluative standards applied to an incumbent in a particular position. Four incompatible-expectation situations were identified: (a) situations of role-definition, determination of authority, and activity responsibility assignment between a board of education and the superintendent, (b) situations in which the subordinate was a member of a profession and the superordinate was not, (c) situations involving a dual role, such as personnel decisions involving salary issues and (d) situations requiring perception of other incompatible expectations. Behavior in role conflict can be predicted according to four courses of action described in relationships among (a) perceived legitimacy of the expectations, (b) perceived sanctions resulting from non-conformity, (c) orientation of the individual to the sanction-legitimacy dimensions, and (d) the individual's behavioral proclivity.

Campbell and Lipham (4), following a conference involving more than 100 school superintendents, reported in 1959 the results of an examination of a number of approaches toward the development of theory in educational administration, an exploration of empirical findings emanating from research, and a test with superintendents to determine relevance of concepts and the research in educational administration. The conference consisted of four parts which dealt with relationships between theory and practice, with realities in administration, with internal and external relationships, and the dimension of roles in educational administration.

Marland (in Campbell and Lipham (4)), outlined certain areas of application for administrators designed to improve the educational administrative process. These areas of application included increased scholarly reading, removal of the one-man show, improved communication with social scientists, greater involvement in research processes, and increased use of leadership common sense. Getzels (in Campbell and Lipham (4)) took three stances toward the improvement of the role of the administrator: natural leadership, facility in human engineering, and greater conceptual understanding. Guba (in Campbell and Lipham (4)) elaborated a model which summarizes most of what is known about internal administration and which contains four parts: behavioral determinants, alienating forces, integrating forces, and actuating or driving forces. The role of the administrator in this model is to produce behavior that is organizationally useful as well as individually satisfying (ideographic-nomothetic). According to the model, the administrator needs to work effectively with people, perceive organizational and personal role definitions, elicit behavior with appropriate driving forces or power, prevent role alienation, and utilize various integrating forces. Essentially, the administrator must help individuals to grow and to mature while fulfilling their organizational obligations. Schooling (in Campbell and Lipham (4)) investigated the relevance of research in internal administration and concluded that the administrator must set up conditions which result in growth, the acceptance of individual responsibility, and recognition of organizational goals. The administrator needs personal integrity, organizational skill, creative leadership, and faith in the wisdom of the staff.

Cunningham (in Campbell and Lipham (4)) examined research in external administration and interpreted external administration as those acts of the administrator which in any way tend to perpetuate or modify the ecology of the school. The administrator's role in external administration is to manipulate the external environment of the school through the application of his specialized knowledge. Hill (in Campbell and Lipham (4)) analyzed the relevance of research in external administration and defined a two-fold task of external administration: to inform the public about schools and to establish techniques or devices for stimulating the public to take a hand in the shaping of what is to come.

Campbell, Charters, and Gregg (in Campbell and Lipham (4)) indicated that the role of educational administrator and its ultimate professional growth is dependent upon collaboration on the part of the scientist, the developer, and the practitioner. These three roles were presented as influential upon the success of the field of educational administration. Chase (in Campbell and Lipham (4)) perceived the role of the educational administrator as one of implementing the goals of education in a contemporary world. The administrator in this role might enhance his effectiveness by paying major attention to motivation, work, and achievement while allowing satisfaction largely to take care of itself, since it is arguable whether contentment leads to productivity.

Griffiths (12) noted the identification of a key concept in educational administration which was revealed in a Kellogg Foundation project. The concept was that educational administration should become more interdisciplinary than ever before, since the true content of administration is people, and the role of the administrator is that of directing and controlling the living in the (school) social organization. This role will be dependent upon skills in democratic society functioning.

Written Policies and a Conceptual Framework

Walton (21) noted that the administrator ascertains purpose, but does not affect or influence it. He failed, however, to explain the role of the administrator when he is confronted with conflicting purpose. Walton indicated that policy-making and administration are separate and distinct functions in an organization, and that there is a clear differentiation of administration as a special function.

Campbell (3) analyzed the process of policy-making in education and proposed a flow chart, suggesting that policy originates in the basic social, political, economic, and technological forces of society. These forces, often national and international in scope, produce controversy, a quest for information, attempts to influence, and other socio-political activity which is interrelated at local, state and national levels. Those who participate in the process present value choices and influence which lead to formal or legal expression of policy.

Cunningham (7) noted that policy-making is a process involving initiation, definition, deliberation, enactment, and consequences. He indicated the influence of cultural values upon each stage, and reported that personal-organizational values promote coalitions which decrease policy alternatives.

Magoulas (17) reviewed literature on written policies and assessed attitudes of administrators, board of education presidents, and other educators regarding the use of policy. The findings indicate that policy-making provides a working conceptual framework for efficiency and effectiveness. Specifically, written policies cover predictable situations in advance, permit expeditious handling of school business matters, reduce demands made on schools by pressure groups, clearly define policy, minimize the number of emergency issues, reduce conflict and misunderstanding, help laymen understand their role in improving education, provide a summary of past action for future use, minimize uncertainty regarding academic freedom, facilitate orientation of new and inexperienced personnel, provide a comprehensive aid to evaluating and improving education, and clarify vague lines of responsibility which often lead to professional conflict.

Deever (8) analyzed personnel practices in selected school systems of the southwest region to determine formulation and utilization of policy, staff assignment and promotion, transfer and leaves of absence, practice, separation from service practice, factors affecting teacher morale, and the value of existing practices. The study findings indicate that the official personnel policies of many schools cover only limited areas of personnel administration and that more administrators recognize the value of policy than have the policies in their schools. Recommendations include encouragement for administrators to base personnel administration upon written policies which are formulated by cooperative participation of the board of education, the superintendent, other administrative personnel, classroom teachers, and lay citizens.

Spriegel and Dale (20) determined practices used in business and industry in several areas of personnel management involving firms located in all geographic sections of the United States. The study revealed that many personnel departments maintain organization charts as an important subsidiary to the establishing of rational functional relationships and lines of authority within the organization. The managerial organization chart (covering the organization generally) is very widely used, and the departmental chart is used to a lesser extent. Written statements of personnel policies are made by more than two-thirds of all companies. Of those personnel department functions which include research activities, designed either as preliminaries to action or as checks on its effectiveness, both job analysis and job evaluation are enjoying wider usage.

Garrity (11) analyzed the job of the personnel administrator in California public schools to assess the status, responsibilities, and duties of the position. Findings indicated that 90 per cent of the group had regular responsibilities of recruitment and selection of personnel, and formulation of personnel policies; and that the greatest need to raise the status of the position is an improved organizational plan in district level administration. Recommendations were that the person in this position should have his duties and responsibilities outlined in writing and that he should be responsible for the formulation and development of personnel policy.

In a study of existing and desirable practices in the organization of district-level personnel administration in selected California school districts, Mack (16) found that responsibilities of the personnel administrator should be written in the administrative guide and/or the board rules and regulations, and that personnel administrators should become familiar with the sequence of developmental stages of district-level personnel organization structures.

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RESEARCH STUDIES IN THE ROLE AND RELATIONSHIPS OF TEACHER ORGANIZATIONS

Collective bargaining and the role of professional and union organizations is a prime focus of interest in the area of school personnel administration. The legal and practical aspects of public policy regarding teachers' collective action, the relationship of teachers to organized labor, the role of teachers' unions and professional organizations, and the emergence of teachers in school board negotiation are all issues generically categorized in this review of research. A dearth of sophisticated research is readily apparent throughout this analysis; consequently, case studies, observational analyses, and program characteristics are included to facilitate a broader understanding of the scope of this area. Also, two organizations, the American Federation of Teachers and the National Education Association, have contributed greatly to the knowledge in this area. As a result, a brief analysis is included regarding these two organizations in this succinct review of literature.

Legal and Practical Aspects of Teacher Bargaining

The present legal position of non-federal public employees (including teachers) and public employers with regard to the layman and crucial aspects of private-sector collective relationships which have developed in implementation of traditional labor policy and law in the United States were defined by Wildman (10) as follows: (a) organization is prohibited by statute in a few states, protected by statute in a greater number of states, and ignored by other states. Court decisions and executive orders in numerous states indicate that the right exists for teachers to join together in organizations of their own choosing; (b) the right to designate a majority representative and exclusive representation status is not granted by state statutes; (c) the union shop is not sanctioned in teacher organization laws and court decisions; (d) the dues checkoff (automatic salary deductions) is fairly common in public employment; (e) the right to bargain is authorized in statute by 14 states, prohibited in two states and ignored by 34 states; (f) submission of disputes to binding arbitration meets objections of illegal delegation of authority; (g) the states, through statute and virtually unanimous court decisions, prohibit strikes of public employees, including teachers.

Types of Teacher Negotiation

The National Education Association (8) noted that formal professional negotiation agreements are classified into three categories: (a) those noting only recognition of the teachers' association by the board of education; (b) those noting recognition and, in addition, outlining the procedures to be followed in negotiations; and (c) those noting recognition, outlining negotiating procedures, and providing for some form of mediation in the event of a negotiating impasse.

Wildman (10) indicated that the forms taken by teacher collective action encompass an entire range of possibilities from (a) wholly informal solicitation of teacher views, either through the administration or by the board directly, at budget time, to (b) an "advisory" sort of negotiation conducted by the school board, meeting with representatives of teacher groups in the system, possibly culminating in a legally innocuous "memorandum of understanding" incorporating any agreement reached, to (c) a formal relationship between a majority union and the board, marked by "hard" bargaining in the traditional labor sense, and the execution of a complete collective bargaining agreement.

Teacher Work Stoppages

Yarbroff and David (11) have provided one of the most descriptive histories of teacher work stoppages and have found that in 97 work stoppages involving teachers in a 14-year period, 46 per cent of the stoppages were caused by teachers affiliating with AFL-CIO organizations and 24 per cent were caused by affiliates of the NEA. The remaining work stoppages were caused by teachers affiliating with no organization or with an independent organization.

In the same 14-year period, there were 93 work stoppages involving teachers; 21,570 teachers participated in the work stoppages; 208,420 man-days were lost in the stoppages; the average duration of work stoppages was nine days; and only slightly more than half of the stoppages were accomplished because of wage-hours issues, with 45 per cent accomplished to gain organizational recognition or for other working conditions.

Lieberman (6) analyzed the issues in teacher strikes and noted several aspects of teacher work stoppages. According to Lieberman, the right of teachers to strike and the wisdom of exercising that right are closely tied to the acceptance of the strike in other areas of employment, both public and private. There are conflicting trends which rule out any dogmatic predictions about the future role of teacher strikes. It may turn out that there will be an increase in the kinds of government employees who have the legal right to strike while at the same time there will be a declining exercise of that right. Teachers with the legal right to strike would have far less need to exercise that right than teachers who had no such right. The added bargaining power gained by having the right to strike helps to prevent conditions of employment from deteriorating to the point where strikes are necessary.

Lieberman further stated that the destruction of personal liberty in totalitarian countries, where government has pre-empted control of employment and then denied any right to strike against the government, should alert teachers to avoid snap judgments concerning the right of public employees to strike. A complete prohibition of strikes by teachers could perhaps be a wise policy if it were coupled with adequate machinery to settle employment problems by some other means than administrative or legislative fiat.

Personnel Organizations and Teacher Negotiation

Jordan (5) indicated that the great challenge to public education as we know it today is not in the curricular areas; it is not the increasing demands for the tax dollar; it is not frills in building or the nature of professional courses for teachers. Rather, the challenge is in the rapidly developing conflict between the National Education Association and the American Federation of Teachers.

The National School Boards Association (9) is opposed to sanctions, boycotts, strikes, or mandated mediation against school districts and does not consider them to be proper remedies for use in problem situations. The authority of the board of education is established by law and this authority may not be delegated to others ... NSBA urges each local board to review its policies, procedures, and activities and to give careful consideration to incorporating the following items: (a) procedures which will actively involve school boards, the administrative staff and teachers in discussing total budget needs with particular emphasis on the determination of salaries and the handling of grievances; (b) written policies concerning the above procedures that are widely disseminated, and presented in such a way that they are clearly understood by all parties concerned; (c) policies whereby the superintendent, as administrative officer of the board, can function as a channel and interpreter of teacher concerns to the board and of board responsibilities and concerns to the teacher. Direct hearings with the board should be arranged through the superintendent if this proves inadequate. In addition, local boards should support their state school boards associations in opposing legislation which condones sanctions, boycotts, strikes, or mandated mediation against school districts. In the event such legislation or judicial decisions exist, state school boards associations are urged to seek appropriate legal means to repeal or overrule them.

The American Federation of Teachers, according to President Cogen (1), of the United Federation of Teachers, has implied that nothing concerning the operation of the schools, including curriculum, content, and methodology, is immune to joint decision-making and "codetermination" of collective bargaining. As an example of this developing co-responsibility, an addition to the 1963 New York UFT (reported by the Bureau of National Affairs) (2) was pointed out:

"The Board ... and the ... (Union) will strive to achieve a mutually acceptable formulation of general objectives and of long-term educational goals and programs in areas of such mutual concern as the recruitment of well-qualified teachers, the improvement of difficult schools, the reduction of class size, and the development of a more effective curriculum.

" ... The Superintendent of Schools, or his representative, will meet and consult once a month during the school year with representatives of the ... *(Union)* on matters of educational policy and development."

The President of the UFT has claimed that this clause gives the "union a share of control in the administration of the school system," as reported in Newsweek (3).

In the NEA's policy (7), some of the specific ways in which the evolving concept of professional negotiations might differ from traditional bargaining are as follows: (a) School systems and teacher organizations should be excluded from coverage under any extension to public employees of allegedly "inappropriate" labor laws, procedures, and precedent developed to handle disputes and bargaining relationship problems in the private sector of the economy. Any mediation growing out of a negotiating impasse between a teacher organization and the board of education should be through exclusively professional, educational channels. (b) Any local teacher organization should have the option of deciding whether or not to include administrators in its group for negotiating purposes. (c) Teachers' organizations with school boards should not be fragmented; any given bargaining unit should include at least all classroom teachers employed by the board. (d) Teacher organizations should remain wholly professional in character and affiliation, rejecting any ties whatsoever with organized labor (e) A program of "sanctions" rather than the strike should be used in otherwise unresolvable impasse situations.

Effects of Conflict and Negotiation

A study by Dent (4) shows the ways in which organizational leaders perceive the actions and attitudes of their own teacher groups; the ways the organizations are perceived by the leaders of the opposite teacher organizations; and the ways in which the school board members and school administrators, in turn, see those same organizations of teachers.

According to Dent: (a) when the teaching force is divided into several groups, teacher organizations have limited impact on decisions which affect teachers; (b) certain school board members believe teacher organizations attempt to benefit education; others believe the organizations exist to further teacher welfare; and other members believe the organizations try to serve both interests; (c) organizational leaders believe their own group influences decisions of the school board to a greater extent than do the other organizations. These same organizational leaders exaggerate their own effectiveness beyond their obvious manifestations of power; (d) although the school board gives teachers assurances of "freedom of association," no guarantees exist that such free choice is permitted at all administrative levels of the school system; (e) certain certificated educators believe one organization would represent the teacher point of view effectively, but they do not agree upon the form that such an organization should take. School board members do not agree that teachers would benefit from having a single organization; (f) individual school board members may attempt to achieve board goals by exploiting the divisions among teacher groups; there is no evidence of an organized attempt to do so. If teacher organizations are too weak to influence the school board's decision-making, the directors see no need to use organizational division to the board's advantage. Board members base their decisions on relevant factors and not on organizational pressure; (g) leaders of teachers' organizations which do not allow administrators to participate believe membership by administrators inhibits teacher expression within their group; (h) many leaders of teacher groups feel only their organization holds certain unique, fundamental values. These leaders see no similarity of goals in opposing organizations; (i) although the term "professional" has no commonly held referrent, the word is used as a key term of communication in the educational field; (j) most school board members have standards by which they assess the educator's claims of professionalism. On the other hand, organizational leaders assess the "professionalism" of their own and other organizations with little reference to any established criteria.

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RESEARCH STUDIES ON TEACHER MORALE

Behavioral science, in both industry and education, is steadily moving up the hierarchial ladder in its analysis. The earliest investigations in education were all about students. It was their differences, abilities, achievements, and behaviors which seemed subject to analysis, prediction, and control.

Concern now is not solely with understanding students, but with understanding teachers and administrators. Much of the research on teacher behavior has concentrated on the identification of factors related to teacher morale. Such studies became increasingly frequent in the late 1940's and have continued to the present time.

This review is organized into sections of variables or clusters of variables which have been studied in relationship to the morale status of teachers.

Administrator Qualities and Administrative Practices

As one might expect, a number of studies indicate that administrator qualities and administrative practices significantly affect teacher morale.

Linder (18), in a study of factors affecting staff morale, found that leadership is an important factor in teacher job satisfaction, and that the administrator has the opportunity to directly affect the levels of teacher morale. Discipline policy, class load, faculty meetings, classroom interruptions, and others were cited as factors in morale status.

Redefer (26) analyzed the results of morale studies conducted by 50 graduate students under his guidance at New York University and concluded that principals are the cornerstones in faculty morale status.

In a study of teacher attitudes in New York City schools, Cohen (8) discovered that "democratic" administration can counterbalance many negative factors related to low teacher morale. Dennerlein (9), found teacher support from administration important to job satisfaction.

One of the significant findings of Chase (7) in a study involving more than 1800 teachers representing 216 districts in 43 states was the close correspondence between teachers' ratings of their superintendents, principals, and supervisors and the extent of their satisfaction with the school system. At the top of the teachers' list of the 11 most significant factors related to their satisfaction was dynamic and stimulating leadership of the building principal. They placed emphasis on such aspects as: (a) helpfulness in solving problems of instruction and pupil adjustment; (b) contributions to the professional growth of teachers; (c) respect for the teacher's competence and "democratic" administration; and (d) friendliness, understanding, and interest in the teacher's work.

A study to identify specific personal and professional characteristics of elementary school principals which might affect teacher morale was conducted by Silverman (30). This investigation revealed that practically everything about a principal's character or behavior did affect teacher morale. The analysis indicated that a principal's personality and human relations contacts had more of an effect on teacher morale than did his physical or mental characteristics, his professional background and experience, his work as an improver of instruction, or his activities as an administrator.

Leipold and Yarbrough (17) reached the conclusion that strongly significant demoralizing effects are most readily felt when there is a high degree of negative variation from commonly accepted, approved administrative practices.

Zaref (35) studied the relationship of morale and the feeling of educational freedom of the teacher. He found a very high agreement between morale and the feeling of freedom, indicating that, for example, unless the teacher feels free to choose books and to discuss controversial questions with students, his morale is adversely affected. This finding was substantiated by Chase (6).

Donahue (10), found that morale status of a school faculty corresponded to the school staff's judgment as to the effectiveness of communications. Redefer (26) also found that the adequacy of communications upward and downward in the school system has a decided effect on the morale status of the teaching staff.

Teacher Participation in Decision-Making and Planning

Several studies pointed out the importance of teacher participation in decision-making and planning to the status of teacher morale. Such studies include those by Harap (12), Chase (6), and Redefer (26). Bowman (4) uncovered a difference in attitude toward teacher participation between superintendents and principals in Oregon school systems. Superintendents showed more unfavorable attitudes than did principals toward teacher councils and other devices for participation.

Recognition

The degree of recognition received is related to teacher morale. Hodges (14), pointed out that ratings and evaluations given teachers have a significant relationship to their morale status. Rettig and Pasamanick (28) found that morale was significantly related to teacher status and prestige, and to student respect, as did Harap (12). Chase (6) discovered that teachers rated by their superintendents as superior tend to be considerably more enthusiastic than those rated below average. Suehr (33) found parent satisfaction to be significantly related. Of all studies reviewed, only Dennerlein's (9) failed to show a relationship between teacher morale and recognition and praise received.

Administrator Fulfillment of Teacher Expectation

In his massive study involving some 1800 teachers, Chase (7) reported that the proportion of enthusiastic teachers among those who gave the highest rating to the superintendent's leadership was nearly seven times as high as those who gave the lowest rating. Less than ½ of 1 per cent of the dissatisfied teachers gave the superintendent a top leadership rating. Ratings of principals and supervisors were also closely related to teachers' satisfaction. From the results of this survey, Chase postulated that when teachers' expectations with regard to the leadership of the principal, the superintendent, and supervisors are met in high degree, there are about 70 chances in 100 that the teachers will be enthusiastic about teaching and less than 1 chance in 100 of active dissatisfaction. The results of interviews showed a wide variance in teachers' expectations of what this leadership should be. In schools where morale was rated low, teachers emphasized a disciplinarian concept of the principalship. Teachers in high-morale schools tended to reject the concept of the principal as a maintainer of authority. Whether low morale is the cause of this view of the leadership role, or whether this view of the leadership role causes low morale was not determined.

In a similar study, Bidwell (3) came up with somewhat different findings. His study indicated that the level of teaching satisfaction depends upon the teacher's expectation of how the administrator should behave and whether or not this expectation was fulfilled, but not upon the nature of the expectation itself. Teachers who expected autocratic behavior on the part of the leadership and got it were frequently just as satisfied as those who expected democratic behavior and got it.

Bernstein (2) and Shapiro (31) found that role expectations and reality and the position concepts of teachers and principals played a significant role in affecting teacher morale status. Barry (1) used the technique of questioning both administrators and teachers, and found that the low morale schools were ones in which the school board members and administrators differed most from teachers in their answers to the same questions.

Remuneration

Studies by McLaughlin and Shea (22), Hedlund and Brown (13), Rettig and Pasamanick (28), Harap (12), Chase (6), all identified adequacy of salary as a significant factor in determining morale status of teachers, but Dennerlein (9) found that salary was not related to teacher morale.

In none of the studies reviewed was the type of salary schedule a discriminating factor between high and low morale teachers.

Thompson (34) studied the morale status of comparable secondary school teachers in New York City who opposed and who favored the single-salary schedule. He found no relationship between support or opposition to the single-salary schedule and the morale status of teachers.

Of all researches reviewed which studied the effect of merit versus nonmerit provisions in salary schedules, those by Mathis (21), Carpenter (5), and Redefer (26), none showed a relationship between this type of schedule and the morale status of teachers.

Type of Student and Community

Cohen (8) wondered whether teachers in low socio-economic communities in New York City harbored many more negative attitudes as a result. Comparing schools in different communities, she found that teacher morale depends on many factors other than socio-economic status of the community. She found that in these schools parents were more co-operative and more appreciative, according to the teachers, and that there was a less competitive spirit in the faculty.

Rabinowitz and Rosenbaum (25) discovered that teacher morale was not related to the mean I.Q. or economic status of the pupils. Hedlund and Brown (13), however, found the quality of students to be highly significant as a determining factor of teacher morale.

Student attitudes and behavior were found to be related to teacher morale. McLaughlin and Shea (22) discovered that negative student attitudes toward learning was a chief dissatisfier. The patterns of child behavior most distressing to teachers, as found by Kaplan (19), were those which violated the teachers' personal standards or challenged their roles as leaders, disciplinarians, and instructors.

Size of Classes and Time Free From Students

Harap (12) reported that small classes were of secondary importance in creating teacher satisfaction, but that large classes were of primary importance in creating dissatisfaction. He also found lack of a rest period to be a dissatisfier, as did Hedlund and Brown (13).

O'Conner (24) discovered that happier, or high morale teachers had more free time away from their pupils each day.

Personal Qualities and Status

The findings of investigators have conflicted with respect to the relationship of teacher morale and sex, marital status, and length of service.

Mason (20) studied the factors related to level of satisfaction of beginning teachers and found greater satisfaction among women teachers. The Research Division of the National Education Association (23) reported that more women than men expressed satisfaction with teaching. Suehr (33) found that men outnumbered women 3 to 1 in the low-morale group. Chase (6) found that women tend to be slightly more enthusiastic than men.

Redefer (26), however, reports that the morale status of teachers is not determined by age, sex, or marital status.

Mason (20) found greater satisfaction among single teachers.

Rabinowitz and Rosenbaum (25) studied morale of elementary school teachers in two stages of their professional careers--before teaching and after three years of experience--and found that a decline occurred during the interim. Chase (6), however, found that satisfaction increases with experience and length of service in the system. To complicate the picture further, Rempel and Bentley (27) stated that the results of a survey of 263 vocational agriculture teachers showed morale appearing to rise significantly after 14 years of experience but dropping again after more than 30 years.

Mason (20), the NEA Research Division (23), and Chase (6), report greater satisfaction with teaching among elementary than high school teachers.

LaBue (16) concluded that teacher attitudes as measured by the Minnesota Teacher Attitude Inventory were related significantly to knowledge of the principles of educational psychology, child development, and child behavior, but were not related significantly to objectivity, friendliness, emotional stability, personal relations and other traits as measured by the Guilford-Zimmerman Temperament Survey.

Ross (29), in a study of rural teachers, found that the social origin of the teacher is not a determinant of the morale status of teachers.

Suehr (33) came up with some unusual findings. According to the results of his study of Colorado teachers, those who indicated that the parents of the opposite sex had more influence on them were more likely to have low morale. High-morale teachers tended to be stout or plump and low-morale teachers of the muscular body type. Also, Suehr states, the general impression one receives of the low-morale teacher is that for many items he tends to be at one or the other extreme of the scale, but on the whole has a higher opinion of himself, at least intellectually and physically, than does the high-morale teacher. He poses the question: does the low-morale teacher think that teaching, or at least teaching in that school system, is not good enough for him?

Other Factors

Stosberg (32) confirmed the importance of teacher morale by indicating that the quality of the educational program is a reflection of the morale of the staff. Redefer (26) reported that the morale status of teachers is related to their efficiency as teachers and to the quality of their teaching.

Mason (20), reporting on beginning teachers, stated that there appeared to be a slight tendency for more satisfaction in more urban areas than in less urban districts. He also found that a very favorable attitude of relatives toward the teaching profession is associated with a high degree of satisfaction on the part of beginning teachers with their jobs.

Gilbert (11) found no evidence of relationship between the morale status of teachers and extra-contractual positions.

Hunter (15) made extensive surveys of New Orleans teachers in 1950 and 1953, and found a general increase in morale between 1950 and 1953. One conclusion reached by Hunter was that periodic attitude surveys stimulate morale in that teachers are led to believe that somebody is interested enough to try to find out how they feel.

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CHAPTER III

PROCEDURES

The procedural organization of this research and development activity included several phases and methods. Some of these phases were: planning and augmenting, preliminary research investigation and accumulation, a research development seminar, evaluation, and a synthesis and elaboration of seminar outcomes.

Planning and Development

The primary tasks accomplished during the initial planning and development process included: (1) the identification of high priority areas of critical importance in school personnel administration, (2) the tentative organization of the research and development activity -- the seminar, (3) the formulation of objectives and structuring of methods for review of literature with reference to the identified high priority areas, (4) selection and invitation of seminar participants and consultants, and (5) the preliminary outlining of needs and characteristics of physical arrangements. The planning process was accomplished by the staff of the research and development activity and supplemented with interdisciplinary personnel and seminar consultants.

Preliminary Review of Research

A broad and comprehensive survey of literature was conducted by the project staff with the assistance of several graduate students in the identified high priority areas. The review was organized to facilitate adequate preparation and background information necessary to permit substantial treatment of the problem areas defined, and to facilitate familiarization of participants with pertinent research existing at the time of the project activity. The relationship between research and practice was emphasized in the high priority areas of school personnel administration.

Prior to the seminar stage of this activity, the comprehensive review of literature was accumulated and organized, and mimeographed copies were furnished to staff and participants. The volume of research proved to be a valuable device in sustaining a highly informed group of participants during the remainder of the activity, and furnished a valuable resource for those involved with the preliminary aspects as well as the seminar phase.

More than 200 articles, reports of research, and publications were summarized and included in the development activity materials. The materials related to personnel administration and included a wide range of theory and research findings in the fields of education, industry, psychology and philosophy. The material was organized into four sections: (1) readings relating research and practice, (2) readings in research not found in practice, (3) readings in practice not found in research, and (4) readings of general nature pertinent to the selected topics. Each section was organized to include divisions and sub-heads, coinciding with the delimited high priority areas, as well as a subject and author index with cross references.

The use of this material was of great importance in the success of the seminar phase. The material provided a quick reference for consultants and participants during the activity participation. The greatest benefit from the preliminary review of literature was the supply of ideas and points of reference it provided for the accomplishment of the activity objectives. A summarization and extension of this phase of the developmental activity is found in Chapter II.

The Research and Development Seminar

As a means of providing a vehicle for accomplishing the objectives of this activity, a six-day seminar was proposed and organized, and was conducted in November, 1964. Participants in the seminar were drawn from fields of research in education and other disciplines, personnel administration, and appropriate inter-disciplinary areas. The theme of the seminar was: "Identifying techniques and research that contribute to narrowing the gap between research and practice in school personnel administration." Careful pre-planning and post-planning activities and the selection of staff and participants were recognized as keys to accomplishing the objectives of the activity as well as the purpose of the seminar.

Staffing the seminar. The seminar was staffed on a ratio of one consultant and one Arizona State University resident staff member to each group of five participants. The full-time consultant staff was composed of: (1) a generalist in educational personnel administration oriented to research and interdisciplinary contributions, (2) an expert in research design and statistical analysis, (3) a social psychologist, (4) an expert in business personnel administration oriented to relationships between personnel research and practice as well as interdisciplinary aspects, and (5) a successful practicing school personnel administrator. Several special interdisciplinary consultants on a day-to-day basis were drawn from Arizona State University.

Thirty seminar participants were selected on a nationwide basis from such positions as superintendents of schools, assistant superintendents for personnel, directors of personnel, and related research and professional assignments. Criteria were established for the selection of participants. They included: a specific interest in the activity, competency to contribute to the activity, success as a practitioner in the personnel area, full-time availability for the seminar, acceptance of the objectives of the activity and a recognition of the research orientation of the seminar.

The composition of the group of participants with respect to assignments included three superintendents of schools, seventeen school personnel administrators, three university professors with interests and activities in research and/or personnel administration, and seven persons from interdisciplinary fields, private research organizations, and professional organizations with activities directly related to personnel administration and research.

Planning panel. A panel met in early autumn to assist in developing final plans for the seminar. The panel was selected on the basis of availability, interest, potential ability to help structure the seminar activity, and professional competency. The panel was composed of the principal investigator, resident staff, the generalist consultant, the personnel administrator serving on a consultant basis, a personnel director--seminar participant, and two research assistants. The planning panel in a two-day conference was concerned with selection of the consultant staff; selection of participants; and seminar organization, procedures, and arrangements.

Seminar organization. The six-day seminar was conducted during the period of November 8-14, 1964. The activities were organized around the committee of the whole consisting of the participants and staff, and around area panels which were organized according to the interest and competency patterns of participants and staff. Establishment of sub-groups in three area panels was necessary in order to explore individual interests and problems. Area panels were assigned one of the high priority areas as identified in Chapter I.

Typical seminar activities included the following: (1) presentations of original papers, summaries, and reports on problem areas related to seminar objectives, (2) area panel activities which explored in detail the relationship between research and practice in school personnel administration, (3) committee of the whole critique of papers, summaries, reports and area panel findings, (4) the identification of techniques to meet the objectives of the entire project, (5) the identification of promising research problems and topics which, if pursued, can further reduce the gap between research and practice in school personnel administration.

Seminar area panels. The area panels were regarded as the "production units" of the research and development seminar. The panels consisted of five to eight participants, a consultant, a seminar staff member, and a recorder. Composition of the panels--which were created on the basis of the participants' interest, experience, and knowledge--generated the creative results which were among the goals of the seminar. The nature of the seminar required a special kind of structure and pre-established direction which is set forth in the seminar agenda. Each panel followed this schedule and structure to assure adherence to the seminar purposes.

A revolving chairmanship for each panel was established to enable full realization of leadership potential within the group. Each chairman was requested to establish at the outset the specific responsibility of the panel and to specify the contribution the panel was expected to make. A recorder assigned to each panel had the responsibility of recording and formulating reports. Through the recorder, reports were organized, clerical service was provided, and reports of panel activities were duplicated each day. A reasonably uniform approach in the recorder's procedures was followed in each of the groups with procedures supervised by a member of the seminar staff.

Each area panel had a permanently assigned meeting place throughout the seminar, and conference rooms were available not only during regular seminar hours but at such other times as the panel members desired.

Each panel topic was considered as a broad general area and each group was initially required to delimit its activities and establish direction. Area panel topics included the following: (1) staff participation in policy making and planning, (2) leadership development and selection, (3) role and relationships of unions and professional organizations, (4) teacher morale considerations, and (5) conceptual framework for school personnel administration.

In the agenda following, provision was made for each area panel periodically to report to the committee of the whole. The reporting relationship of each panel to the committee of the whole served two principal functions. First, it provided communication that enabled each panel to understand what the other panels were taking into consideration; and second, it provided the advantages of the exchange growing out of the discussions.

The seminar agenda. The seminar agenda of proceedings, activities, and sessions in chronological arrangement included the following:

(1) First day: (evening)
(a) Arrival of participants, consultants, and staff.
(b) Assembly and registration.
(c) Introduction and get-acquainted session.

(2) Second day: (morning)

(a) Welcome to Arizona State University by the University Academic Vice-President.

(b) Charge to the seminar by the project principal investigator: An oral review and presentation of the scope and purposes of the seminar and its structure.

(c) Paper - "The Relationship of Research and Practice in School Personnel Administration" by the generalist consultant in personnel services: A delineation of the relationships of existing research and practice in school personnel administration, including a clear-cut statement as well as illustrations pertaining to existing gaps between research and practice.

(d) Responses to paper - "Why It Is Difficult To Bridge the Gap Between Research and Practice" by the personnel administrator-consultant and "Human Factors in Bridging the Gap" by the social psychologist-consultant.

(e) Group discussion and questions.

(3) Second day: (afternoon)

(a) Paper - "Research Methodology in Personnel Practice" by the specialist in research and statistics: A review of the findings with respect to research and practice in the respective panel areas and the identification of the nature of the principal gaps between research and practice.

(b) Response to paper - "Applicable Research and Research Methods from the Behavioral Sciences" by the interdisciplinary consultant.

(c) Area panel meetings: Each panel reviewed the available literature pertinent to its area, canvassed the experience of the panel members, and considered the need for consultant resources. Panel procedures and responsibilities were discussed and assigned, and the rotating chairmanship plan was considered. Plans for communication between the panel and its recorder were established.

(d) Committee of the whole: A panel of the consultants and first-day area panel chairmen considered the first day papers and area panel activities, and re-emphasized the scope and direction of the seminar, chaired by the generalist consultant and the principal investigator.

(4) Third day: (morning)

(a) Paper - "How Psychologists Have Approached the Problem of Bridging the Gap Between Research and Practice" by the social psychologist-consultant.

(b) Response to paper - "Practical Applications of the Psychologist to the School Personnel Area" by the personnel administrator-consultant.

(c) Questions and discussion on papers - chaired by a selected personnel administrator-participant.

(d) Area panel meetings: Each panel continued its activities with a preliminary listing and discussion of techniques of bridging the gap between research and practice in each specific area.

(5) Third day: (afternoon)

(a) Area panel meetings: Each panel initiated a look at possible techniques of bridging the gaps, defining and classifying promising techniques, and related specific types of research to the selected techniques.

(b) Committee of the whole: Area panel chairmen presented reports which were directed to the manner in which each panel was organizing its activities and the techniques under consideration. A panel of chairmen and consultants, chaired by the research-specialist consultant, reacted to the reports and suggested further panel activity.

(6) Fourth day: (morning)

(a) Paper - "Contributions from Business Administration to Improved Personnel Administration" presented by the interdisciplinary consultant: Relationships with other disciplines in dealing with the issue of closing the gap between research and practice.

(b) Responses to paper - "What the Behavioral Sciences Can Contribute" by the research specialist-consultant and "Specific Applications to Improve School Personnel Administration" by the generalist in educational personnel administration-consultant.

(c) Questions and discussion on papers chaired by a selected specialist-participant.

(d) Area panel meetings: Each panel continued its activities in isolating practices specifically needing improvement, ascertaining the availability of research to guide and stimulate improvements, and identifying needed research to close the gap.

(7) Fourth day: (afternoon)

(a) Area panel meetings: Each panel continued activities delineated in (d) above in preparation of a first draft of a perliminary panel report for the committee of the whole.

(b) Committee of the whole: Group reports were presented by area panel chairmen. Consultants and recorders summarized and synthesized reports for availability during the next committee of the whole session.

(8) Fifth day: (morning)

(a) Committee of the whole: A panel of consultants analyzed the area panel reports and their relationship to the seminar objectives. A committee of area panel representatives indicated the scope in critical analysis of the challenges in meeting the seminar objectives.

(b) Area panel meetings: Each area panel utilized a critique of the preceding committee of the whole analysis to reassess their progress in achieving the seminar objectives, and determined a course of action in subsequent panel activity.

(9) Fifth day: (afternoon)
(a) Area panel meetings: Each area panel continued its activities in the accomplishment of the identified seminar objectives.
(b) Colloquy: This University-sponsored activity was held in conjunction with the seminar personnel and schedule. The seminar representative from the U. S. Office of Education, along with three selected participants, led the colloquy on USOE research in school personnel administration. Seminar participants and University staff and guests participated.

(10) Sixth day: (morning)
(a) Area panel meetings: Each area panel continued its work sessions including preparation of final area panel written reports on the identification of gaps, availability of research related to gaps, and needed research to improve school personnel administration.

(11) Sixth day: (afternoon)
(a) Committee of the whole: Each panel presented a final report of the outcomes, findings, and conclusions in respect to each area of consideration. A general session ensued with an analysis of the needed research and improvements of personnel administration.
(b) Evaluative interviews with each participant and consultant were conducted to provide an opportunity for an assessment of the success of the seminar activity.

(12) Seventh day: (morning)
(a) Committee of the whole: A discussion session was conducted to determine future steps necessary to bridge the gap between research and practice in school personnel administration. Each participant contributed a brief presentation suggesting a high priority research proposal in the school personnel area.
(b) Paper - "Where Do We Go in Personnel Research?" presented by the seminar participant from the U. S. Office of Education as a culminating activity.
(c) Adjournment

Follow-up activities. Subsequent to the seminar research and development program, certain activities were specified, planned, and conducted to facilitate more extensive service to the objectives of the project. Among these additional activities were: (1) an extensive re-elaboration of existing research findings, which involved attention to areas identified during the seminar, (2) a thorough analysis, synthesis, and summarization of all research findings in each area of seminar concentration, (3) a synthesis and condensation of consultant's papers for inclusion in the final report, (4) the analysis of area panel findings and reports, (5) the identification of techniques presented in the seminar of use in bridging the gap between research and practice, and (6) the delineation of areas of personnel administration in need of further research and additional emphasis for increased improvement in school personnel services.

CHAPTER IV

ANALYSIS OF THE DATA AND FINDINGS

The findings and interpretations of the data for this study are presented in four parts. The first three parts are devoted to the research and development activity, and the fourth part provides corollary outcomes and results which arose during the seminar process.

SEMINAR PANEL FINDINGS

The findings provided by the seminar area panels were directed to the objectives of the research and development activity. Preliminary research needs in personnel administration were identified and techniques for bridging the gap between research and practice in school personnel administration were developed. These findings are organized by high priority area in personnel administration. Complete final reports of each area panel are found in the Appendix.

Area Panel Findings in Staff Participation in Policy Making and Planning.

Research needs identified. The area panel on staff participation in policy making and planning delineated the following needs in research:

1. Investigation of advantages and disadvantages of staff participation in policy-making and planning.

2. Analysis of effective organizational patterns for staff participation in policy-making and planning.

3. Determination of respective roles of the certificated staff, classified staff, administrators, and school board in policy-making and planning.

4. Identification of effective methods of keeping the entire staff informed of developments when a representative committee system is used for staff participation.

5. Selection of the most efficacious means of obtaining staff members for committee memberships (appointment by superintendent, election by peers, volunteering, etc.), as shown by an analytical process.

6. Study of how staff members can most effectively communicate their concerns to executive officers.

7. Analysis of components of school "climate" conducive to effective participation of staff members in policy-making and planning, and those which are not conducive to effective participation.

8. Investigation of the worth in teachers meeting with individuals with whom they might work (including department heads and fellow teachers) during application and selection.

9. Investigation of means by which school staffs can communicate with college and university personnel to effect improvements in teacher training programs.

Area Panel Findings in Leadership Development and Selection.

Research needs identified. The area panel on leadership development and selection delineated the following needs in research in this high priority area:

1. Analysis of adult learning and adult education methodology to determine how it can best contribute to the training of the school administrator.
2. Analysis of administrative strains, both internal (within the individual) and external (within the organization); determine which levels of administration are confronted with the different stresses; and make a careful analysis of these strains to better determine qualifications for a particular job.
3. Study of the relationship between various personality configurations and the ability to meet the demands of the leadership position.
4. Determination of leadership qualities needed in the modern-day school.
5. A longitudinal and biographical study of successful administrators, to develop a list of desirable characteristics of leadership.
6. Development of instruments and procedures to help administrators select and develop leaders.
7. Investigation of present administrative training programs and trainees.
8. Analysis of present techniques used for selecting administrators including interviewing, case reports, decision-making ability, and other evaluative criteria; also an evaluation of personality evaluation techniques.
9. Development of criteria for inservice programs to improve administrator performance on the job.
10. Development of criteria for graduate university programs to train the school personnel administrator.
11. Determination through time-study and job analysis, administrative duties and activities in the various school administrative positions.
12. Determination of the implications of modern technology (computer and other technical equipment) and new methodology (ungraded school, team teaching, flexible scheduling) in the training of administrators.
13. Determination of which areas of graduate and undergraduate study are useful in the training of administrators.
14. Investigation to determine which interdisciplinary subject matter is necessary for properly training administrators.

Techniques for bridging the gap. Findings of the area panel on leadership development and selection identified the following techniques for bridging the gap between research and practice in school personnel administration:

1. Develop a system for the classification of research in school personnel administration comparable, perhaps, to the Dewey decimal system or the Library of Congress system and/or use data processing hardware available to facilitate this end.
2. Gather, classify, and disseminate research pertaining to school personnel administration through the services of some central agency such as the U.S. Office of Education, professional organization such as NEA, or a university or group of universities working in collaboration (example: taxonomy by Griffiths at New York University).
3. Develop a system to assure effective liaison among school districts, regarding significant pilot projects to avoid unnecessary duplication of effort.
4. Publish a periodical of titles and abstracts of on-going and completed research in the field of personnel administration.
5. Solicit resources of foundations, governmental agencies, and others to finance the activities suggested in this report.
6. Establish a district specialized position, full or part time, in which reports on research would be reviewed and reported in the language of the school system to appropriate individuals.
7. Take advantage of free consultant services as a part of student teaching, internships and other programs offered by some universities.
8. Develop an exchange program between school districts and schools of education at both the classroom and administration levels (e.g., have a professor of administration spend a year as principal, and the principal spend a year on the faculty of the school of education).
9. Use the annotated bibliography on "administrative training and executive development in fields other than education," which identifies a number of training programs and selection techniques, as a foundation for a more extended development of this resource.

Area Panel Findings on Role and Relationship of Teacher Organizations.

Research needs identified. The area panel on role and relationships of teacher organizations in school personnel administration delineated the following research needs:

1. Determine what matters are being discussed and negotiated and what matters may become negotiable.
   a. Analyze the similarities and/or differences of items being negotiated by union affiliated organizations and NEA locals.
   b. Determine who selects and assigns priority, and what competence is

utilized in the formulation of the items being negotiated.

   c. Determine which matters may not be appropriate for negotiation and/or if legislation should be enacted to specify areas open to negotiation.
   d. Determine the relationship of negotiated items to existing or needed legislation.
   e. Determine the proper role of teacher organizations in decision making in curriculum development and methodology.
   f. Analyze the implications of teacher collective action for teacher participation in the school program and the unity and cohesiveness of the school staff.

2. Determine the public image of the teacher as he embraces bargaining relationships, with the accompanying implication of strikes and/or sanctions.
   a. Determine whether such practices matter to the individual teacher, to the profession, and to the teacher-pupil or teacher-parent relationship.
   b. Determine if it is necessary for the teacher to choose between "professional status" and first-class citizenship, or if it is possible to have both.
   c. Determine, assuming the public ultimately controls the purse strings, if more will be gained by traditional lobbying and public relations activities than by collective action.

3. Determine the extent to which teachers are ready and/or willing to assume real responsibility for educational decision-making.
   a. Determine the extent to which teachers will be responsible for the results of their collective decision-making and the impact it will have upon the entire educational process.
      1) Determine the extent to which teachers understand collective action in terms of its implications for personal action and interaction.
      2) Determine the relevant understanding of teachers and administrators about the mechanics of collective bargaining.
      3) Determine the relative competency of teachers rising to positions of leadership in teacher organizations.
      4) Compare the understanding and ability of teachers with that of administrators.
      5) Compare the relative effectiveness in training members for decision making by organizations participating in collective bargaining with those that do not.
      6) Determine the percentage of the membership who actually "run" the organization.

4. Determine if there is any relationship between classroom objectivity and affiliation with various organizations.

5. Determine the role of the teacher organizations in politics.
   a. Determine the extent to which, if any, the organization should take an active part in local, county, and state and national elections. If any, should this be in the form of a public or private endorsement only, or should a candidate be selected and given

    financial support from the organization?
  - b. Determine if the political activity of teacher organizations should be restricted only to educational objectives, or should it be broadened to include goals of the larger society.

6. Determine the role of administrators in collective bargaining.
   - a. Determine if there is inevitable conflict between teachers and administrators which makes it necessary to exclude administrators from teacher organizations which conduct collective bargaining.
   - b. Determine the likelihood of collective action by teachers leading to negotiations by groups of administrators.

7. Determine what forms of teacher organization power, short of withdrawal of services, are developing.

8. Analyze the pros and cons of sanctions versus strikes in relationship to teacher effectiveness, teacher morale, and teacher recruitment.

9. Determine the obligations of other professional groups in honoring sanctions, strikes, or other group power activities of teachers.

10. Determine the relationship of merit-pay theory and practice to teacher organization philosophy and negotiating behavior.
    - a. Determine if the merit-pay program reduces the unity of an organization.
    - b. Determine if there are possible salary systems in which differential payments to teachers would not be devisive and, hence, acceptable to the organization.

11. Determine the motivations of teachers to organize and negotiate collectively; teacher satisfactions and dissatisfactions resulting from the process; does collective action accomplish the goals of bettering education through production of a better staff?

12. Determine the philosophies and programs of professional groups which deny desirability of any form of collective action.

13. Analyze the implications of teacher collective bargaining on the development and implementation of education (curricular) change.

14. Analyze implications of the tendency to push disputes toward the state level and what may be consequent changes in structure of decision-making for the entire educational enterprise (Utah).

Techniques for bridging the gap. The area panel investigating the role and relationship of teacher organizations in school personnel administration designated the following techniques for bridging the gap between research and practice:

1. Develop and disseminate a bibliography of material about collective employer activity both in education and other enterprises.

2. Develop and disseminate a bibliography of research studies about the

inherent nature of conflict between different subordinate and superordinate levels in other types of organizations (and about the possible positive as well as negative functions of conflict). (The practicing school administrator should develop for himself a viable and realistic theory of his role, or roles, and the roles of others in the organization. This will help him determine whether there is, or should be, conflict over any matters between teachers and administrators in the properly ordered school system; and, if so, to what extent any of the aspects of negotiation or bargaining are appropriate to handling it.)

3. The U. S. Office of Education should be responsible for the follow-up activities listed below.
   a. Reports should be made by the University of Chicago Study Group before state and national NEA and AFT conventions when the study is concluded.
   b. Gather as many educational journal editors as possible to discuss and explain these results.
   c. Publish a series of small pamphlets in great quantity, each focusing on one phase of collective activity, written by a middle man between research and practice--a man with professional training in communications.
   d. Arrange for a series of college and university seminars for lay leaders. Each department of school administration should set up at least one of these.
   e. Phi Delta Kappa, or some other national organization not directly involved in collective action of the type studied, should hold a national two-week study conference for top organizational leaders.

Area Panel Findings in Teacher Morale.

Research needs identified. The area panel investigating teacher morale identified the following topics in school personnel administration as requiring research:

1. Develop instruments for appraisal of staff morale. Indices may include: (a) absenteeism; (b) transfer requests; (c) staff turnover; (d) kind, number, and frequency of complaints; (e) staff opinion; (f) student dropouts.

2. Analyze morale relationships among different levels (teachers, pupils, administrators, board members, parents, citizens) to determine the relationship of morale among these groups.

3. Determine the relationships between these morale levels and other conditions (e.g., morale and pay scale, merit pay, performance).
   a. Suggested items for investigation include: crime level in a community; productivity (in terms of goals), teacher load, extracurricular assignments, academic freedom, fiscal policies, communication problems, degree of participation, personal variables of students, personal variables of teachers (tenure, salary, family income), professional organizations, image of teacher as perceived by the community and himself, imposition of non-teaching functions,

academic training, level of community support of school, effectiveness of supervision, attitude of school board, physical procedures, recognition, orientation of press, communications of school district to community, number of eligible men in school district, curriculum changes, in-service training, image of the principal, personality orientation of superintendent, participation in policy formation, socio-economic origins of teachers, transfer policies, double sessions.

4. Conduct experiments by systematically changing the conditions to determine causal relationships to morale (e.g., alter policies of communication to study effects).

Area Panel Findings on Conceptual Framework for School Personnel Administration.

Research needs identified. The area panel investigating conceptual framework in school personnel administration designated the following areas as in need of research:

1. Goals and values
   a. Identify and define existing educational values.
   b. Identify the sources of values adopted to determine how they came to have acceptance.
   c. Analyze value conflicts.
   d. Analyze value priorities.
   e. Make comparative studies of the effects of different personnel policies on achievement of value goals.
   f. Make comparative studies of the effects of different personnel policies on individuals--morale and ethical concerns.

2. Tasks of the school system and nature and needs of individuals employed to carry out these tasks.
   a. Develop functional descriptions of tasks.
   b. Make studies of ways of grouping or clustering specific tasks so as to provide functional "job descriptions" or "role definitions."
   c. Make studies of requirements imposed by the various roles as to personality, intelligence, skill, knowledge, and other individual characteristics.
   d. Make studies of conflicts and inconsistencies and roles and their requirements.
   e. Make studies of the feasibility of combining roles in individual positions and of problems arising therefrom, including studies of ways of regrouping or redefining traditional staff positions so as to minimize the need for individuals to assume conflicting roles in carrying out a single job assignment.
   f. Make studies of demands made upon individuals by the various roles under given conditions, and the relationship of these demands to individual capacity and willingness to meet them in our society.
   g. Make studies of the needs of personnel capable of fulfilling the requirements of the various school system roles, with particular emphasis on the relationship of the achievement of the tasks involved in the various roles to the meeting of these needs.

3. Decision Making.
    a. Determine at what levels decisions affecting personnel administration are actually made.
    b. Determine what modifications in decision-making procedures are necessitated by the growing "professionalism" of teachers.
    c. Determine the differential roles of the authorities involved in decision making for personnel administration.
    d. Determine the sources of evidence used by administrators in decision making in personnel administration.

4. Motivation-incentive system operating within the school district as a social system.
    a. Determine the common "dissatisfiers" (a la Herzberg, et al) and the differentiated "dissatisfiers" for the several categories of positions (administrators, teachers, pupil personnel service workers, secretaries, food service workers, custodians, etc.)
    b. Determine the common and differentiated "motivators" (a la Herzberg et al) for the several categories of positions.
    c. Determine how the dissatisfiers and motivators vary with such characteristics of the workers as subject matter field, grade level (where this is a variable); age; sex; marital status; career stage (early, middle, late); proximity to possible desired or mandatory retirement; district type; community size, and relative professionalism.
    d. Contrast the informal reward system (a la Salton) with the formal reward system.

Techniques for bridging the gap. The area panel investigating a conceptual framework for school personnel administration reported that a great deal of research in this high priority area had already been done. The research, however, was not being widely applied to the development of personnel policies. The techniques the panel identified as pertinent in bridging the gap between research and practice were as follows:

1. Interpretation and dissemination to practitioners of research in the social sciences which pertains to the organization and functioning of social institutions.

2. Interpretation and dissemination of research in the behavioral sciences pertaining to ideographic quanta in the organizational setting.

SEMINAR PAPERS

As described in Chapter III, each consultant to the research and development seminar presented a paper on selected topics pertinent to the seminar objectives. The papers were assembled into a continuous sequence for presentation in the final report. The papers which follow are abbreviated versions of those presented at the seminar. Included in this section are the following papers: "The Relationship of Research and Practice in School Personnel Administration," by Richard C. Lonsdale; "Response to Lonsdale," by Edward D. Greenwood; "Research Methodology in Personnel Practices," by Ellis B. Page; "Response to Page," by Wilmar F. Bernthal; "How Psychologists Have Approached the Problem of Bridging the Gap between Research and Practice," by Edward D. Greenwood; "Practical Applications of Psychology to School Personnel Administration," by Carroll L. Lang; "Contributions from Business Administration Research to Improved Personnel Administration," by Wilmar F. Bernthal; "Response to Bernthal," by Ellis B. Page; and "Response to Bernthal," by Richard C. Lonsdale.

THE RELATIONSHIP OF RESEARCH AND PRACTICE IN SCHOOL PERSONNEL ADMINISTRATION

Richard C. Lonsdale

The Intellectual Ferment

The last half of the twentieth century probably will be marked by more continuing intellectual ferment than any previous era in man's history. This statement can be made both relatively and absolutely, despite the extent of such previous historical periods in the flowering of knowledge as the Renaissance. And it is at least a credible proposition that this ferment will continue and further develop into the indefinite future.

Happily, the general intellectual ferment of the world and national scene also characterizes the educational scene, and especially the field of educational administration.

For this intellectual ferment to continue, both generally and in our own field, will require increasing emphasis upon two of its phases: the production and the utilization of knowledge. Both are important. It is significant to note that a phase of this seminar's work was designated "bridging the gap" rather than "closing the gap" because it was recognized that knowledge must always be out in front of practice; there must always be both lead time and lead space between the two. Theory and research must ever be probing and penetrating frontiers if they are to serve usefully as guides to action.

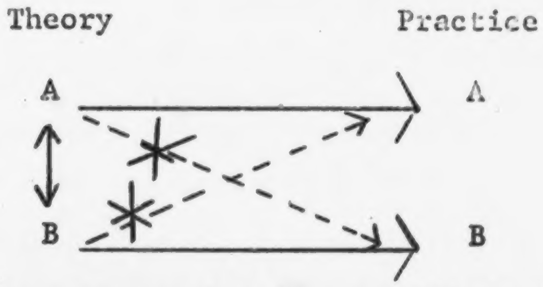
A few questions pertinent to school personnel administration will illustrate this probing quality. Is it true in education, as it seems to have been found in some large industrial concerns, that increases in material rewards and incentives, beyond a certain point, do not increase motivation? If we each have a kind of reservoir of "adaptation energy" from which we draw in meeting stress, is there any way of measuring the extent of this reservoir biologically and psychologically in order to forecast capacity for stress? How can we so manage an organization as to eliminate or ameliorate unhealthy conflict and tension while retaining the healthy, stimulating kind? How can we help a man change his administrative style so that he can help his organization move from one level of organizational climate to a higher one? What will be the effect on school personnel administration of the now emerging revolutionary concepts of the nature and social role of work in our society? (17) These are examples of potentially fruitful relationships between theory, research and practice.

The Conversion of Knowledge to Action

Although we are concerned also with the production of knowledge, our main concern here this week is with the conversion of knowledge to action. I shall treat this topic under four subheadings: the relationship of theory, research, and action; processes in the information transfer chain; social roles involved in the information transfer chain; and the learning process involved in converting knowledge to action.

Relationship of theory, research, and action

Writers such as Coladarci and Getzels (6), Griffiths (10), and Halpin (15), have analyzed the misunderstanding of theory which characterizes our field. They cite the commitment to factualism, unwarranted respect for authority of experts and laws, fear of theorizing, inadequate professional language, tendency to become emotionally identified with certain views, and belief that theory is the ideal and the antithesis of the practical. As I have listened to the discussion of theory-practice incompatibilities, I have heard attempts to relate the unrelatable. Thus, as in the accompanying figure, every practice has its underlying theory. Theory A lies back of Practice A, Theory B back of Practice B, and so on.



The underlying theory or assumption is more likely implicit rather than explicit. The difficulty often arises in the attempt to argue Practice A against Theory B or Practice B against Theory A. The real task is to discern and articulate the respective underlying theories and then argue Theory A against Theory B.

This brings us to the nature of theory. Griffiths defined theory as "a set of assumptions from which a set of empirical laws (principles) may be derived." A theory, itself, cannot be proved by direct experiment. Hearn called theory "an internally consistent body of verified hypotheses. It is assumed, of course, that 'verification' is provisional rather than absolute. ... Theory should always be regarded as a policy and never as a creed." (16:8)

Theory serves a hierarchy of purposes: (a) to describe a phenomenon or event and guide the collection of facts concerning it; (b) to explain a phenomenon or event and guide the way to new knowledge; (c) to predict an outcome of a given interaction and to actually guide action; and (d) to control an event or outcome by manipulating certain variables toward a predicted and desired end.

Converting knowledge into usable form, according to Guetzkow, requires three steps: (a) the basic variables are re-identified and measured in concrete settings; (b) the relevant model involving these variables is selected and composed from alternative theories; and (c) the magnitude of the important constants in the selected system are determined, so that specific predictions may be made for each different situation.

Difficulties in this process arise out of the undeveloped state of knowledge in the social sciences, with theories inadequate to fit particular situations; lack of a basic knowledge of social science among practitioners; and the complexity of the interrelated system in real social situations. (12)

Hill sees theory, research, and practice constituting "an integral whole that can be divided only by artificial barriers." (18:489) He holds that good theory serves a heuristic purpose of stimulating questions to be answered by research and providing analytical tools for asking the most fruitful questions. The findings of the resulting research which the administrator can use are not the data themselves, but the relationships among the data (18:485).

In short, theory is a patterning or organization which we impose upon data and events, the better to describe, explain, predict, and control them. Research serves to test the validity of these patterns or organizations against data drawn from real situations. These findings or relationships, once established, can increase the administrator's predictive and controlling capacity and thus guide his action.

Processes in the information transfer chain

The Wiesner Report (30) used the phrase "information transfer chain" to describe the succession of processes in converting knowledge to action. The report pertains to the natural sciences, but its contents are easily adaptable to the social and behavioral sciences. Thus:

> The information chain operates like a switching system. The ultimate aim is to connect the user, quickly and efficiently, to the proper information and to only the proper information. But perfectly precise switching is neither possible nor desirable. One cannot define in advance exactly what information is proper; the switching system must always allow for some browsing in neighboring areas. Moreover, the capacity of the user to absorb information limits the system. Evidence is accumulating that the amount of scientific literature the user will pay attention to is limited; one survey conducted by *Biological Abstracts* suggests that on the average a biologist can scan journals or titles or abstracts involving 5,000 papers per year. Thus the information switching system, to be effective, must be more than a passive switch: it must select, compact, and review material for the individual user so that he *actually assimilates* what he is exposed to, and he is not exposed to too much that is unimportant or irrelevant. Its fundamental task is switching *information*, not documents. (30:13)

To make this information transfer chain more efficient, steady improvements are being made in information-handling technology. New handling and searching techniques include retrieval systems using automatic machinery, citation indexes for gaining access to the literature, machine preparation of abstracts and translations, and microfilms and microfiches for compacting the size of records. New retrieval methods may be divided into the graphical, which make direct photographs of documents which still require eventual human reading, and the digital, which use a few index or key words or convert the whole text into digital form. (30)

Social roles in the information transfer chain

A series of social roles parallels the processes in the information transfer chain. The incumbents of these social roles carry out the processes. Thus, the scientist generates knowledge by isolating variables and constructing theories. The social engineer or middle man (a) develops practical alternative measures of a given variable, once the variable has been conceptualized and operationalized; (b) selects appropriate theories from among alternatives, if relevant theories are available; and (c) re-determines initial conditions and factor weightings each time the concrete situation changes. The practitioner and technician correspond to the production manager and technician in industry. The ultimate user is the product user of industry's output. (12) Also involved in the knowledge-conversion process are such groups as technical societies and professional associations, government agencies, private publishers, and technically oriented companies. (30) Indeed, their involvement presents problems of overlap and coordination.

One example of the impedance or resistance in the conduit from knowledge to action is the difficulty of communication between the social scientist and the businessman (or administrator). When serving as a consultant to an operating organization, the social scientist may feel like the marginal man, with conflicting loyalties to his discipline and to the organization he is serving. Few social scientists are trained in the application of their knowledge to the workplace. They are hampered by their technical language and by goals and time orientations different from those of the practitioner.

To bridge this gap between the pure scientist and the practitioner, Campbell (4) called for the professor of educational administration to serve as "developer." In this role he would (a) develop and maintain a span of knowledge covering education in general, educational administration, and the social science disciplines; (b) provide a communication link between those who generate knowledge and those who apply it; and (c) assess the pertinence of social science findings, designing ways of adapting and applying them to school situations. The personnel manning the pipeline would then be the pure social scientist, the professor of educational administration, and the practicing administrator.

Learning process involved in converting knowledge to action

A fourth element in the conversion of knowledge to action concerns the nature of the learning process involved for the practitioner. Improvement in knowledge does not guarantee improvement in practice. "Learning, like all other experiencing and behaving, is an active process which results from efforts of the individual to satisfy need." (7:193) "The problem of changing behavior is not one of motivating people but of helping them to perceive differently." (7:57) "When people seem to us to be undermotivated, it is not because they are really so, but because we don't understand their goals." (7:57).

One hindrance to the learning process for educational administrators is the lack of a tradition and expectation of full-time graduate study in their specialization. This is probably the greatest single handicap in graduate work in the field of education generally. The part-time student is still the norm. How adversely this contrasts with practice in such other professional fields as medicine, where the internship, for instance, serves to develop the professional self-image, a sense of "growing doctorhood," as Mary Huntington called it. (19) Other constraining forces upon the learner, discussed by Clark (5) are certain cultural values (the strong doing orientation in the American culture where the model leader is the one who gets things done in order to build toward a bigger and better future); and institutional forces within the training institution (why do some universities turn out mainly practitioners of administration while others turn out mainly professors of administration?).

The main substance of these preceding comments is that we are doing an inadequate job of helping our graduate students in educational administration internalize not only relevant social science theory and research, but also a whole approach to decision-making by constantly striving to relate practice back and forth with theory and research.

Accelerating the Conversion of Knowledge to Action

It seems to me that one conclusion to be drawn from the foregoing analysis is the need to speed up the conversion of knowledge to action. This, of course, is what this seminar is all about. How, then, might we accomplish this?

Better organization, summarization, and interpretation of knowledge

One answer is to bring about a better organization, summarization, and interpretation of knowledge. Fortunately, some real progress is being made in this direction. Daniel E. Griffiths, of New York University, is currently directing a project, under a grant from the Cooperative Research Program, to develop taxonomies of knowledge related to educational administration. He and his associates will attempt to develop taxonomies drawn from such organizational models as bureaucracy, general systems theory, the social systems model, and decision-making. Then they will try to combine these into a common taxonomy. Three recent books are attempts to extract useful relationships from theory and research and to present them in ways which can be utilized or adapted by all who are engaged in the knowledge-conversion process. One is the book by Berelson and Steiner, entitled Human Behavior: an Inventory of Scientific Findings (1). This pioneering work presents some 1045 findings supported by summaries of extensive research. Published this year, the book contains such chapters as those on perceiving, learning and thinking, motivation, the family, face-to-face relations in small groups, organizations, and institutions. New Patterns of Management (21), a 1961 book by Rensis Likert, is based on the major findings of the research program, begun in 1947, of the Institute for Social Research of the University of Michigan. Some of its chapter titles are "Leadership and Organizational Performance," "Group Processes and Organizational Performance," "Communication, Influence, and Organizational Performance," and "The Effects of Measurement on Management Practices." Another book published this year, even more germane to our particular field, is the Sixty-Third Yearbook of the National Society for the Study of Education, Part II. Behavioral Science and Educational Administration (11). This is a summary, interpretation, and sometimes extension, of areas of theory in the social sciences, with applications to educational administration. The summary of selected literature related to high priority areas in school personnel administration developed for this seminar by graduate students here at Arizona State University is another example of current attempts to make selected knowledge more available to potential users.

Improved processes in the information transfer chain

The Wiesner Report of the President's Science Advisory Committee made a number of recommendations for the improvement of processes in the information transfer chain. Among them were the following: (a) "authors must accept more responsibility for information retrieval"; (b) "the technical community should give higher status to the reviewer"; (c) "modern psychological insights into communication should be exploited"; (d) "our scientists and engineers must express themselves clearly"; (e) "the technique of handling information must be widely taught"; and (f) "new switching methods must be explored and exploited." These recommendations indicate the kind of concerns for knowledge-conversion on the part of this study commission at the national level.

In our own field a new service to improve the information transfer process will be inaugurated this coming spring by the University Council for Educational Administration. This will be an abstracting service. To begin, some 54 journals of educational administration and related fields will be abstracted by a group of about 50 professors from a number of universities across the nation.

Phi Delta Kappa is contemplating the inauguration of a companion abstracting service in 1966 to serve the broader field of education. Western Reserve University has done some experimenting with an information retrieval system built around a segment of research in education, utilizing computers. The University of Pittsburgh has conducted a similar project on an aspect of school law. These efforts are bound to multiply and need to be encouraged in every way possible.

Research development

This past summer Mason Haire (13) cited the need for developmental research, midway between abstract laboratory research and applied research, to supply the "neglected middle step" in developing theoretical concepts toward practice. To supply such developmental research showing how to use ideas from the social sciences in business, he proposed joint laboratories set up in a number of universities, each jointly supported by three or more industries. A related idea was proposed for education in New York State two years ago. In education such a developmental research laboratory might be brought about by a further evolution in the structure and purpose of the school study council.

Improvements in the learning process

We also need to make improvements in the process by which people learn how to translate theory and research into practice. There needs to be a better allocation of responsibility for this among the universities, the professional associations, and the school systems. Perhaps the universities need to restrict or more sharply focus their responsibility for the total process of developing practitioners, while the professional associations and school systems need greatly to expand their responsibilities and re-define them.

Better university training of educational administrators is, of course, needed, with more of the training period devoted to the social sciences and more use made of such kinds of learning experiences as cases, sensitivity training, simulation, and internships. Throughout the program more attention should be given to the socialization process whereby the prospective administrators come to internalize selectivity, the values, attitudes, perceptions, motives, interests, skills, and other aspects of the professional culture of educational administration. At the same time, the knowledge-conversion expectation needs to be built into this culture.

Universities and school systems should continue to seek better ways of working together to shorten still further the pipeline between new knowledge and the application of that knowledge in operating school districts.

A final proposal to improve the learning process involved in knowledge-conversion is that school systems establish a new role of "organizational analyst" at the central office level. This would be a part-time role and might well be assigned to such a staff member as the staff personnel administrator. The organizational analyst would be responsible for constantly analyzing the administrative process and organizational structure of the district, together with the extent of its achievement of tasks and satisfaction of human needs.

Summary

We have shared with you a perception of the field of educational administration as being in the midst of an intellectual ferment. The continuity of this life-giving ferment depends upon both the advancement of knowledge and the conversion of knowledge to action. Converting knowledge to action is another term for the theory-research-practice relationship and may be analyzed into discrete processes in an information transfer chain and differentiated social roles for effecting those processes. Basic to it also is the learning process, but a learning process of a special kind. To improve and accelerate the knowledge-conversion process, we need better organization, summarization, and interpretation of knowledge; improved processes in the information transfer chain; research development; and a number of improvements in the learning process through which knowing does become behaving.

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RESPONSE TO LONSDALE

Edward D. Greenwood

In response to this paper, so well prepared and presented by Dick Lonsdale, I have chosen to play a somewhat provocative role. I have selected certain areas for discussion which are important to the school clinician who is concerned with all levels of staff hierarchy. The major responsibility we face now is to project education as it will be in the 1970's. A current major dilemma is the short-sighted preparation of people for educational service in a world that in all probability will not exist in 1970.

To avoid the stagnation process of self-imposed limitations in education, it is essential that another dimension be added to the research picture which will concern itself with the process of unlearning. There isn't enough being done on methods of unlearning out-moded techniques, mannerisms, habits, cultural understandings, superstitions, prejudices, and biases. From the tentative research done in the area of unlearning, we know that the process is far more complicated than the process of learning. It is more difficult because first one has to give up something, something that had an operative potential, if not already an established behavior pattern. The process involves far more than the rearrangement of intellectual knowledge. Only when you are the one who is trying to help people with this unlearning business do you fully appreciate the extent of emotional involvement. How to approach them so that they will want to give up the old ways that in many cases have become part of their personal value systems is a real problem for the researcher. Until this research gap is overcome, positive, worthwhile changes in human behavior will continue to be made only at great emotional cost to the changer and "changee."

In the area of behavior, in general, there is a great deal of research being done. One of the exciting things to observe, I think, is the amount of disagreement concerning the psychology of human behavior. There are almost as many theories as there are psychologists. A few find enough in common to join forces as a school of thought. Some of these schools of psychology move more and more toward the concept that the human being grows through various stages. At each stage, if proper opportunities are available to him, he can learn, he can make progress, and he can adjust to a given society. If for various reasons he is deprived of needed opportunities, his ability to learn in general or to derive the best from his school experience in particular is diminished.

Dick Lonsdale commented about the various machines used in tabulating our knowledge. The ability of the people who do the thinking is far more important than the mechanical operations of the machine. When the machine is viewed as anything more than a useful adjunct to speed up certain mechanical processes, there is trouble ahead.

Carroll Lang commented on team play. I am sure that if he had a chance to elaborate he would include the fact that not all people are good team players. There are people who, because of personality quirks, remain rank individualists and function well as such. There is no reason for change. Everyone need not behave in the same way. In theory, education stresses acceptance of individual differences. Still, once in a while we become aware that the school system is attempting to make all people function in the same way, ignoring individual personality structure and individual contributions. I think the concept of team play is highly desirable for those who want to and can play on a team. But can't we make better use of the creative potential of the individualist? We need research in this area.

Turning to another area now, let me comment briefly about the use of statistics in research. Facts and figures are quoted by everyone these days to prove or disprove everything. For example, if 72,856 individuals are found to be able to perform a certain thing in a certain way, we actually feel we know pretty much about the act for sure. And for that particular piece of specific research, this belief may be wellfounded. But the replication of research is a constant problem. Theoretically, research is scientifically valid if it can be replicated, but we tend to fall short in this area. Dick Lonsdale already has pointed out that there is a need for a reformulation of some of our basic theories of education. The more we broaden the horizons of theory, the more we can contribute to the educational field.

One of the other subjects I would like to talk about is the understanding of human motives, especially the motives of the administrator in the position he holds. Having attained this chosen position, is he the same person he was as he climbed through the various stages leading to it? Does he change in the process of reaching out toward a goal and in grasping it? In the course of movement upward he may perform most effectively. The striving for status or acceptance brings to the fore the very best qualities in him. Once there, however, some of the hidden weaknesses in his personality start popping through. He may be overly impressed by his own importance and begin to see himself as more important than the people and system he serves. Gradually he may undo many of the worthwhile things he did on the way up. Adaptation to success is as demanding as adaptation to almost any other circumstance.

Still another relationship I'd like to discuss for a moment is the emotional reaction of an individual to his own intelligence. Intellect or intelligence does not insure adequate performance, as many of us know. Individuals may have a tremendous amount of knowledge and yet be unable to use it because they are emotionally upset. They may be overly inhibited or overly aggressive. Or they may be so confused about the best ways of using what they know that they engage in obsessive indecision and never get anything done. This is not an uncommon problem. Many well-prepared teachers and well-prepared administrators are crippled by basic problems within their own personalities. They must learn to recognize their strengths and weaknesses and to make sure that they neither play up or ignore their weaknesses. This is a large order, but not impossible.

I want to discuss one more point, and then I will stop. As professional people, you are responsible for leadership and guidance of others who work with and for you. This is your job. But try as you will, you will not be able to divorce your professional life from your personal life. Your feelings, the comfort or discomfort in your home life, the reactions of your wife or husband to you, the reactions of your children to you or you to your children, are vital factors that shape your ability to provide leadership. If, for some reason, you make your professional world the only dimension in life, you can end up with a miserable, destructive home life. And your effectiveness in that professional life can be destroyed. I will stress this point over and over again if I can for the week that I am here. There are far too many competent professional people who are in the process of self-destruction because they continue to ignore the development of a healthy personal daily life in a mistaken dedication to their profession. This can't be done without paying a penalty. Human beings have emotional needs that must be satisfied. Emotions control us far more than our intelligence. I am afraid this point of view would be a hard one to research, but unless we are a most unusual group of people here today, we have more than enough personal evidence to support the claim.

RESEARCH METHODOLOGY IN PERSONNEL PRACTICES[1]

Ellis Batten Page[2]

For one whose first academic love was the humanities, there is intellectual pleasure in turning to a concern as uncrystallized as personnel practice -- as colored by unresolved conflicts of theory and practice, education and business, instruction and politics, aims and means -- as personnel practice seems today. And, in attempting a critical analysis of this huge area, I find myself in an interesting quandary. I am like the substitute sultan in a harem, who knew what was expected of him, but hardly knew where to begin.

The difficulty is expressed in the summary chapter of the 1964 National Society for the Study of Education Yearbook: "one can find little significant research in educational administration actually going forward. Until that situation is changed, talk and visions hold doubtful promise for lasting disciplinary outcomes from the study of administration" (p. 466).

Robert Anderson (1964), was also negative: "The recent research upon which policies of staff utilization and deployment must be based, at least temporarily, is woefully inadequate" (p. 466).

However, a number of developments argue for a bright future, a future radically different from the past.

Let us reflect a moment on the past of behavioral research. I happened to read a reminiscence by Stuart Courtis about a 1908 meeting, when E. L. Thorndike first presented his handwriting scale. This was just a set of models against which one could compare a sample of handwriting, to assign it some "score." The top score was assigned to a beautiful sample, right from the style manual. The bottom was for an ugly, indecipherable scrawl; and the other samples represented a steady progression. Researchers formerly had lacked a way of scoring the quality of handwriting; it had seemed an almost hopeless area of research, as personnel research may seem to many today. But Thorndike had changed all that.

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[1] Paper presented to a "Seminar in High Priority Areas in School Personnel Administration," Arizona State University, Tempe, November 9, 1964.

[2] The writer is grateful to his colleagues in Educational Administration at the University of Connecticut, especially Drs. C. A. Weber and William Gruhn, for suggestions and comments. See Weber (1957)

Sophistication of research has enjoyed a huge growth since that time. If we take this as a base point, we see the first struggle was to establish any sort of reliable measurement or description at all. Figure 1 indicates three levels of predictive description, with such scoring at the most basic level. This first cell is intended to represent all sorts of univariate measurement, including the usual measure of central tendency and dispersion. Here is a kind of predictive power, since we may predict measures in a population from knowing measures in some sample.

Research in administration early discovered univariate description, but too often, even at this descriptive level, administrative research leaves much to be desired. The questionnaire scales, for example, are usually nominal in nature, of vexed origins, and very rarely as useful or as well anchored as Thorndike's 1908 scale. Too often, also, poor samples make results difficult to generalize about any meaningful population.

A second level of predictive description (see Figure 1) is based on relationship between two variables. Common statistical forms are the product-moment correlation coefficient, t-tests and one-way analysis of variance, and ordinary contingency tables. An effort is made to test differences along two dimensions, such as the presence or absence of merit pay, or differences in attitude held by two or more individuals in different job positions toward the same problem.

At their best, bivariate studies may be generalized to some meaningful population. They may permit us to predict with some accuracy one measure: attitude, proportion, or practice if we know some other characteristic of a person or group in the population.

Unfortunately, in most educational personnel research today, such bivariate studies are not done well, either. Properly, sampling must be meaningful, not merely of people or groups under study, but even more crucially of stimulus conditions under study. Here, as in other designs, there should become plausible relation between the conditions of the study and the language used to express the conclusions. The title or summary of the study should not overgeneralize the results, a bad habit in behavioral science.

These questions have been explored elsewhere by the present writer (Page, 1962), and will not be belabored here. The best answer, to use Brunswick's (1956) term, probably lies in a kind of "representative design," in which there is some approach to a sampling of conditions ordinarily meant by the term used to describe the experimental conclusions. In this way we can keep research honest, on any level of complexity.

This bivariate work has a natural appeal. Graphic presentation of bivariate research is simple and bivariate relationships are fairly easy to internalize, so that we feel happy about them. I would guess that not 5 per cent of professional educators know how to predict one variable, knowing another, and knowing the correlation coefficient. They can compute the coefficients, but don't know what these mean in prediction.

Yet the best research in science must not wait upon the understanding of large numbers of persons. It must instead seek the most effective ways of advancing knowledge among the few who do partially understand a given area.

In the third level (see Figure 1), we find such techniques as multiple correlation and regression, one-way analysis of variance, classification procedures, factor analysis, and the like. These require computer solutions and are therefore recent arrivals to practical research. But they are increasingly used in behavioral science at large, and some beginnings are being made in administrative research.[3] A little later I shall give an example of the power of such multivariate techniques.

Now let us turn to an expansion of our model. We have been ignoring one of the most important considerations in research: what *inference* may we draw from our data? Figure 1 was carefully labeled "three levels of *predictive* measurement." Unless some category or treatment has been randomly assigned to subjects, we may not, rigorously speaking, assume causal relation between one measurement (or category) and another.

Many once believed that partial correlation would capture causality. In the case of relating study-time to grades achieved, it was believed that partialling out "intelligence" would allow us to see a causal relationship, by eliminating other variables which might contaminate the results. To the degree that this is possible, it is very helpful. But multivariate cases are now recognized, like bivariate ones, as being far too imbedded in a vast complex of variables, most of which are never measured or known about. And these prevent total confidence in causal inferences in natural data.

However, we *may* infer causality, if we are able to assign subjects randomly to different treatments. If we are able to *assign* principals, of different personality structures, to a fair number of different schools, and assign them *randomly*, we may then infer that later significant differences between such schools are indeed the result of the different principals assigned. Notice we cannot say the difference is the result of the "personality structures" which we believe ourselves to be investigating, for in order to do that, we should need to assign such personality structures randomly to the principals. We *can* make a prediction, as with a measurement study, but it is here a more powerful prediction. With an ordinary measurement study, we can simply say: "In this population, where you find a certain type of personality structure in a principal, you will, more likely than not, also find a certain situation in the school." With our manipulative design, in which we have randomly assigned the principals to schools, we still can state the above sentence. But here we can add: "In this population, if you wish to *produce* such a situation in the school, you may increase your chances by assigning to it a principal or a certain personality structure." This is clearly a much more powerful generalization, since it permits us to *alter* the situation in the school. However, *we are still justified* in stating that the personality structure itself causes the improvement, because we have not randomly assigned such structures to the principals. The change in the school situation could well be caused by some other trait of the principals (intelligence? socio-economic background? education? age?) which is correlated with the personality structure which we believed ourselves to be investigating. Properly, then, we can infer causes only in those conditions which are themselves randomly assigned. All other conditions have predictive meaning, but not necessarily causal meaning.

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[3] At AERA this February, for example, one group from the University of Wisconsin will describe a factor analysis in which school districts are the unit of analysis.

The condition of randomness is indicated by the new dimensions in Figure 2. The left-hand column shows the same three levels of predictive measurement, and the right-hand column indicates the possibility of assigning conditions randomly. The behavioral sciences were for a long period divided into two disciplines, one developing ever greater sophistication in statistical analysis (measurement psychology), while the other developed ever greater sophistication in manipulation (experimental psychology). These two separate disciplines were criticized by Lee Cronback (1956) in his presidential address to the American Psychological Association. Each has its weakness in attempting generalization: The measurement camp usually lacked causal inference, for the reasons given above. And the experimental camp usually lacked naturalistic sampling in subjects or conditions. With either weakness, it is difficult to generalize results to do anything about the real world or to plan any action in it (Page, 1958).

Lately, there has been a drawing together of these two disciplines. In the analysis of variance, there is increasing use of interaction designs, in which some treatment variable, such as method of presentation, may cross some organismic variable, such as aptitude of student. This combination of the analysis and design skills, combined with more relevant sampling, can greatly improve educational experiments.

But what about research in personnel practices, of the kinds that interest us? In contrast to earlier unsophisticated studies, some recent excellent personnel research has been done in education, of the measurement, multivariate sort. Good practical prediction of college success, for example, is almost commonplace today, but dealing, of course, with students rather than with staff members. And the characteristics of teachers have been rigorously explored by Ryans (1960), and by Remmers, by Medley and Mitzel, and by Getzels and Jackson (all in Gage, 1962). Here again, the sounder inferences are predictive rather than causal. And there is much reason to expect still more good work concerning administrative officers in the near future.

Where does the future lead us? I am very optimistic, and look forward to some real progress in the professional lifetimes of us here. But my guess is that it will be done through considerable changes in the present structure. These changes, I believe, will involve the following: (1) upgrading the sophistication of present and future administrative researchers; (2) the advent of increasing numbers of behavioral scientists into the area, attracted by fresh, important terrain, and increasing funds; (3) the redefinition of roles with greater coordination of research effort. I'll consider these in turn.

First, it would not really be too hard for able administrative researchers to become much more knowledgeable than they are at present. The tools are

UNIVARIATE Scores Scales Means Standard Deviations Medians, etc.
BIVARIATE Correlations T-tests one-way analysis of variance Contingency tables
MULTIVARIATE Multiple correlations N-way analysis of variance Factor analysis Classification procedure Canonical correlation

FIGURE 1

Three Levels of Predictive Measurement

Levels of Manipulation

Levels of Complexity	Status Study	Manipulative Study
	Inference: Predictive	Inference: Predictive and Causal
UNIVARIATE		
BIVARIATE		
MULTIVARIATE		

FIGURE 2

Levels of Complexity and Manipulation

increasingly available and understandable. For example, Donald Campbell and Julian Stanley, in their chapter of the Gage (1963) Handbook, in a brilliant 75 pages, reorganize and clarify the entire field of experimentation and causal inference. In the same Handbook, Tatsuoka and Tiedeman have achieved an outstanding synthesis and condensation of the almost all-statistical analysis. No researcher should remain ignorant of either or these works. And Fred Kerlinger (1964) of NYU has just written a massive text on research methods. This work draws together in one package most of the philosophy, probability, measurement, statistics, and research design needed by the bright graduate student in education. Horst has proved that Matrix Algebra for Social Scientists (1963) can be mastered with only high-school background. And Cooley and Lohnes (1962) have shown that the behavioral scientist does not really need matrix algebra in order to do a craftsman's job in multivariate analysis. What he needs more is knowledge of these programs and some further understanding of computer language.

Such works as Entwisle (1963) have brought the most useful computer language, FORTRAN, within the scope of any bright student with a weekend or two to spare. In this way one generation's obscure insight becomes another's obvious rudiment. And today's expertise, happily, can become tomorrow's common sense.

In what particular ways, then, will the administrative researcher upgrade his technical competence? I'll refer to three related and rather obvious ways: Experimental design, computer technique, and statistical competence. We have said something about experimental design and causal inference. Let us consider the other competences.

The first electronic computer was developed 18 years ago for our military establishment, and the first psychological use was only 13 years ago. Ten years ago, the nation depended on computers slower and weaker than those we now find in many thousands of colleges, school systems and small businesses, across the country. But for us, application is more important than technology. Computers are now competent manipulators of logical and verbal symbols, as well as numbers, and they perform prodigious feats in the analysis of language and in the simulation and improvement of judgmental processes. Especially, they show today great intelligence in being able to understand something not too different from ordinary instructions. And the educational worker, with a little study, may find himself able to converse with a wide range of computers.

To some extent, the researcher must learn computer talk. He will not usually become a complete programmer. The researcher should be able to write simple programs and to talk intelligently with his programmers and operators. In a recent presidential address to the Psychometric Society, Lyle Jones (1963) built a persuasive case for the psychological researcher knowing programming personally, in order to do simulation and model-building, and decision-making as well.

Let us pose for you a certain case and see how your skilled, professionally trained human judgment fares with it. You are trying to predict whether a teacher named Mr. Johnson will be successful or unsuccessful. For simplicity, let us say you have just two test scores for him and some information on the test characteristics. Let us call one text M (for mental test) and the other P (for personality test). But please do not make more out of these two names, or you will flounder. These tests have been checked before for two groups of teachers, one a "success" group and one a "failure" group.

The distribution of the two groups on test M is shown in Figure 3. Here it is apparent that the success group is higher than the failure group on M. In this figure, J marks the spot where Mr. Johnson scored. What do you predict so far? Plainly M does not help, yet, with Mr. Johnson.

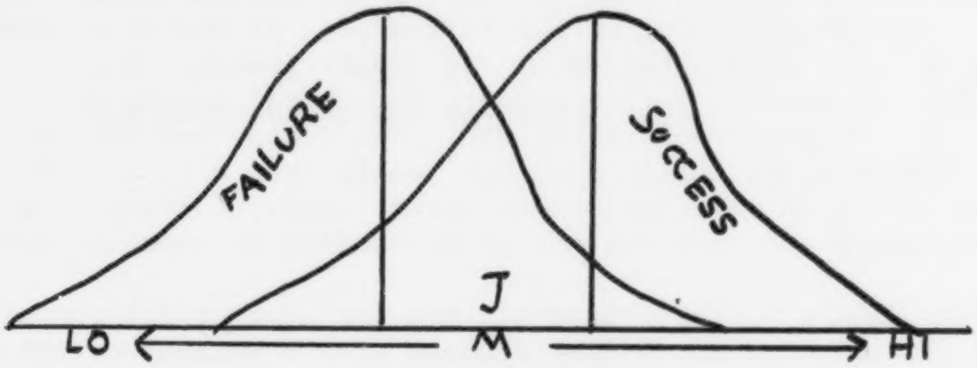

FIGURE 3.

Distribution of two groups on Test M.
Mr. Johnson's position is point J.

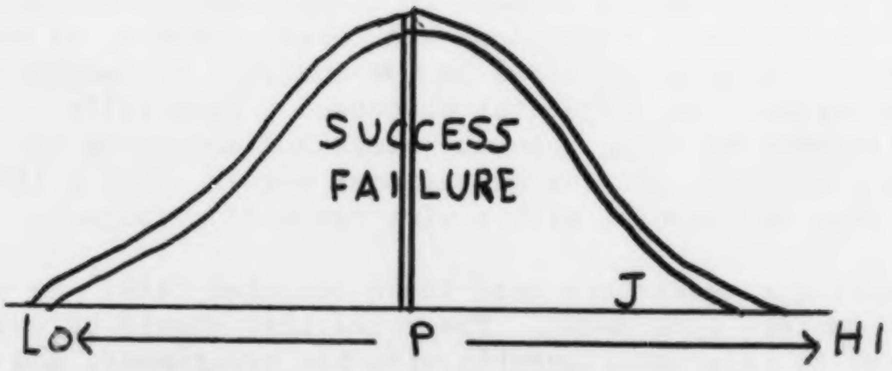

FIGURE 4.

Distribution of two groups on Test P.
Mr. Johnson's position is point J.

For test P, the distribution of the two groups is shown in Figure 4. Plainly the two groups did about the same. Test P does not by itself discriminate, it is clear, between success and failure. From the position of J, Mr. Johnson clearly has scored high on Test P. Now, do you predict he will succeed or fail?

I have put this question informally to friends and colleagues, some in such fields as counseling, admissions, and personnel. One will say, "Johnson has a 50-50 chance." Another will say, "Well, he's only average on intelligence, but he's high on personality. I'll bet on him." This, of course, is directly contrary to the evidence in Figure 4. The best response, but a rare one, is "Are M and P related?"

"Yes, the correlation between M and P is high and positive, around .60."

Does this solve the problem? To the contrary, it usually confirms the professional in a wrong choice. For given the facts we have sketched, Mr. Johnson probably will fail as a teacher. His position is made graphic in Figure 5. Seen in two dimensions, the relations among "success," the two tests, and Mr. Johnson, place him in the failing group.

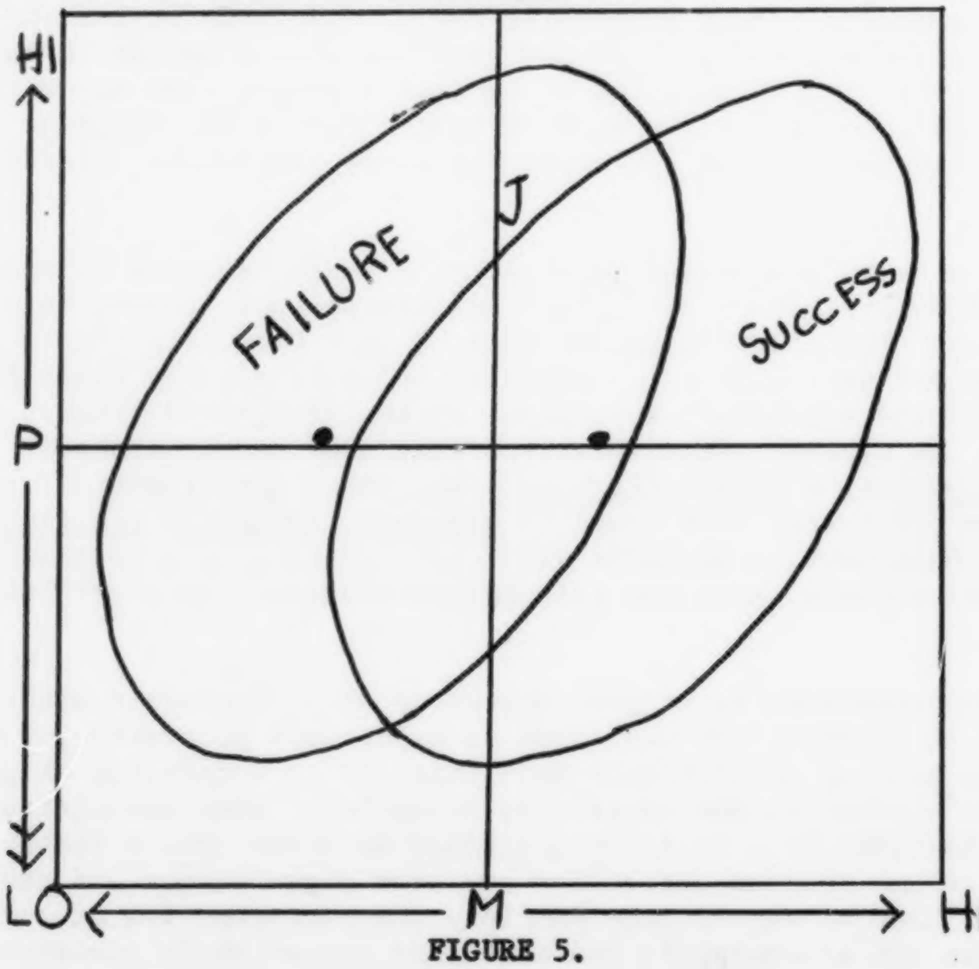

FIGURE 5.

Predicting Mr. Johnson's Failure

A few of you may have recognized in Test P a "suppressor" variable, as it is called in statistical literature. But in terms of human judgment, this conclusion represents a kind of sleight of hand, a kind of magic. For the most skilled human judgment, the most experienced in personnel selection unaided by mechanical statistical operations, would almost always fail this problem, or sometimes succeed for the wrong reasons.

Yet it is clearly one of the simpler ones in multivariate analysis. Suppose 50 predictors instead of two, and a prediction of 10 or 20 instead of one.

And imagine the computer adjustment to these exquisite inner mechanics of nanosecond speeds, and you have what is now routine in classification or canonical correlation programs today. This evidence seems persuasive for getting a higher level of sophistication in these fields among our administrative researchers.

This problem also illustrates another strong development which I perceive in educational research: a rather new way of regarding knowledge. In the past we have thought of knowledge as residing primarily in human nervous systems. At times we have also regarded it as residing in libraries, in countless books which themselves have at some time passed through human nervous systems. But in large data analysis, we see that countless facts are generated, analyzed, acted on, and "forgotten," all at nanosecond speeds.

In large research or data-processing operations, such as certain of our Bureau activities in Connecticut, we may generate such a fantastic volume of new information that the disposal of it becomes a rather complex professional problem. But the point here is that important kinds of knowledge no longer need to go through any nervous system at all to be effectively assessed and put to work.

This brings us to the second major point I suggested, the increasing importance of the behavioral scientist from other disciplines, coming into administrative research. The attractions are here, a rich behavioral field with high public interest and good financial support. And this clearly calls for a definition of roles, and a greater cooperation in the design and conduct of research. I believe that the typical administrative researcher should probably become explicitly a consumer, a hypothesis generator, and a facilitator of research. These roles are contrasted with those of designer, executor, analyzer, or interpreter of it. Behavioral scientists will continue to move into the field with zeal, and should perhaps carry the principal responsibility for these latter functions.

But the language must be in part shared by all. The administrative researcher who is to carry out his roles of hypothesis generation, facilitation, and application must be sufficiently sophisticated to understand at some level those questions handled by the behavioral scientist. Some administrative researchers themselves will be fully qualified as behavioral scientists, so that they may assume responsibility for complete organization and execution of research plans. But we should face candidly the fact that few of today's doctoral candidates are so equipped, and also that few of their advisors are equipped to give complete supervision. I have described here some recent publications which greatly shorten the time required for the sort of familiarization training I would seek for all administrative researchers. Beyond this, I would see, through the increased support to graduate students, and through larger cooperative grants for huge institutes and projects, a combination of the powers of different types of research workers. Working in this way, tomorrow's research goals may make our present accomplishments seem the weak meanderings of a child, just learning to walk, but with the best parentage, and the best intentions, and the best future, on his way to becoming a lad to reckon with.

Throughout this paper, I have emphasized the role played by quantification in research. We cannot escape it. Galileo wrote that mathematics was the code in which all the secrets of the universe were written. In our probabilistic days, we cannot imagine any sort of useful generalization which is not couched in terms of likelihood, or averages, or the interpretation of such estimates.

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RESPONSE TO PAGE

Wilmar F. Bernthal

For one whose first love was humanities, Dr. Page seems to have cast his lot, perhaps irrevocably, with the sciences. Powerful modern statistical tools are available, and are becoming sharper all the time, and new computer technology and hardware will make almost any quantifiable problem soluble.

Yet one wonders why the social scientists, and in our special case the administrators, have not been so totally absorbed by the scientific method as the physical scientists have been. The difference may lie in the nature of the problem under study and in the "nature of the beast" that is supposed to do or apply the research.

One of our challenges here, then, is to determine what kind of research will lend itself to the use of modern statistical study and to computer processing. But at the same time, we must also be concerned about the parts of the world which are significant in administration but may not lend themselves to refined statistical study. Much of the field research in behavioral science may necessarily use much cruder tools than those available in modern statistics. It may be dealing with case studies, observation, interviews, and assembling subjective data from which new hypotheses may be generated or tentative generalizations may be drawn.

The controlled conditions of laboratory experimentation seldom can be approximated in social science field research. The "Hawthorne effect" is well known --the researcher, by his very presence, becomes a part of the problem. In such studies, one may be willing to settle for some prediction, but would find it difficult to determine causal inference. Yet, as Dr. Page has demonstrated, we often rule out even the applicable statistical techniques, and thus come up with "common sense judgments" which are inferior to the kind of conclusions that could be drawn statistically from the data.

If the laboratory for studying administration is the administrative world itself, rather than a controlled environment, then our research is likely to be biased by limited accessibility (we do our research where we are invited in, rather than picking our population statistically) and by feasibility (the laboratory is simply too large and widespread to be able to cover it all, so we do our studies in the Phoenix area in winter time, etc.). The statistical looseness of all this explains, perhaps, why some conscientious social researchers like to come back to a more controllable environment, to study rats or sophomores, which are considered more passive and indifferent to the presence of the researcher and much more readily accessible. One can see a whole host of complications coming out of field research: getting into the organization in the first place; establishing rapport with the host; gaining a consensus on objectives; facing problems of confidentiality and of eventual publication of findings, etc. But unless researchers can fit their studies into the process of administration, their successes in application will be fragmentary and sporadic.

The availability of improved statistical tools, and of computers, removes an initial hurdle toward research in personnel administration. However, there are additional barriers within the administrator himself that may cause him to be less than totally objective in doing research himself, or in inviting research specialists to use his organization as a laboratory.

Administrative behavior is a highly personal thing. Research on the "world out there" is much less threatening to the self-concept of the administrator than research on administrative behavior of the man himself. For many an administrator, folklore, mythology, proverbs and rules of thumb (all of which he calls "common sense") provide comfortable rationalizations for perpetuating certain administrative practices, even in the face of mounting evidence of disfunctional consequences for the organization. The step from the "artist" to the "scientist" is not easily made among administrators.

One could therefore ask to whom we may look for doing new research or supplying the impetus for applying existing research in personnel administration.

Will the existing breed of administrators in our organizations rise to the challenge? Can we assume that the new research opportunities coming out of modern research methodology will excite them into venturing into the unknown? Or more negatively, will the haunting fear that they may be losing the race between obsolescence and retirement force them into searching out new insights and methods in administration, as a measure of sheer self-preservation?

Will the new administrators now being fed into educational systems follow tradition, or will they chart new paths? What will be their impetus for research and for change? In business organizations, the ultimate test is in the market place, and inefficiency is rewarded with bankruptcy. What will be the self-cleansing mechanism in the absence of market measures of efficiency? Here we would look to the attitudes and aspirations that new administrators bring with them from the roots of their professional training--usually their college backgrounds. Maybe we should look at the kind of values and interests that are generated in the schools of education for potential administrators. Do these schools develop the inquiring mind, the experimental orientation, the professional outlook upon efficiency and competence? Do they develop the habit of sophisticated quantitative analysis, use of modern statistical tools, thinking in terms of computer programs, storage and retrieval and analysis of data? That is, do the schools for administrators lead or lag the practice of administration? Or is this the age of the personnel research specialists, who will bring a new professional competence as full-time advisors on personnel matters into the school districts? If the last question is to be answered affirmatively, then the problem will not long be one of sharpening the research tools, but more likely will be that of the relationship of the research expert to the administrators. Inherently, a researcher poses a threat to the status quo, and thus is likely to be viewed initially with suspicion, distrust, or fear. If the personnel staff expert is to play a positive role in personnel research and personnel administration, he will need to be viewed as supportive rather than threatening. Developing such a relationship may be a major issue in bridging gaps between knowledge and practice.

Perhaps we need to think not of research in general, but to differentiate the kind of research that can be done most appropriately at different organizational levels. The administrator himself needs to be competent in, and comfortable with, the statistical manipulation of data to which he has ready access in his day-to-day work. Specialized personnel administrators may need to undertake more ambitious and systematic studies relevant to their broader environment, as well as being interpreters and consumers or research findings from the profession in general. For this purpose, they may wish to add "organization analysts" to their staff, who are assigned a full-time research responsibility.

Finally, perhaps people like Dr. Page, who have the ability and interest to do administrative as well as educational research, will gather into bureaus of educational research the real professionals in the research field. These people, as he suggests, would become the designers, executors, analyzers, and interpreters of major research, and would look to the existing administrators to be consumers, hypothesis generators, and facilitators of research.

Possibly, that is the Utopia toward which our seminar may tend--to find ways by which one can instill in the busy administrator a concern for new ideas and for research, to encourage him to provide a hospitable climate in which other competent researchers could do objective research without too much interference, and to provide him with the specialized resources that such bureaus of educational, or administrative, research can amass, to help him find new approaches to problems which are real to the administrator as well as intriguing to the researcher.

In this respect, the researcher in educational personnel administration has some real advantages over his counterpart in business administration, since the spirit of cooperation rather than competition already exists, and the false sense of secrecy that pervades the business world is not inherently a barrier to open exploration and publication of research findings. But the human barriers remain the same. The intellectual and emotional capacity to venture into the unknown, and to take the risks of upsetting the status quo, may become a critical criterion for selecting and developing administrators of the future.

HOW PSYCHOLOGISTS HAVE APPROACHED THE PROBLEM OF BRIDGING THE GAP BETWEEN RESEARCH AND PRACTICE

Edward D. Greenwood

To establish a frame of reference for this particular presentation, let me provide a very brief glossary of crucial words. The words are "school" and "education."

I choose to regard the school as a very special social community, shaping the values and attitudes of society. Education, reduced to its simplest proportions, is the process of transferring knowledge from one who knows and can teach to one who knows not but who is willing to learn. My concern in education is not so much with material content of book and lecture, but with the more abstruse implantation of moral and social values.

The school should be a place where social values can be stabilized and it should respond to the needs of students from every social and economic level and with every gradation of mental and physical endowment. School administrators are faced with the great responsibility of adapting the school community so that it actually does meet the needs of all its clients.

The third term I would define is "school personnel administrator." He is the crucial individual upon whom the efficient working of the whole staff depends, the coxswain who sets the pace for the race. He is accountable to a vast number of people, including the board of education, administrative and supervisory staff, maintenance and office staffs, students, parents, and the general populace of the community.

He is accountable to the board for problems that develop in the school system and is required to guide the board toward improvements in the present system. He must work to establish esprit de corps among the staff and to fit new personnel into the existing framework.

But, rather than make an exhaustive description of the administrative role, I have chosen to discuss how one might perform on a higher level to achieve better and more lasting results with a lower degree of stress for all concerned.

The apprentice administrator has no pre-packaged tools for solving school problems or effectively carrying out his functions. He is called upon constantly to improvise ways and means; and unless he is able to withstand much frustration and stress, he is hard-pressed to remain balanced and controlled. I shall select three tools--knowledge, objectivity, and sensitivity--to place at the head of my list of human factors that can best serve to bridge the gap between idealism and reality in the school system.

By "knowledge" I do not mean the mass of generally acquired knowledge about school management. All areas are important, but the knowledge I consider so important concerns oneself and the people with whom one works.

Knowledge of the dynamics of behavior is a priceless asset to anyone whose job entails interaction with other people. It is imperative, especially when one assumes a leadership role. From a psychological point of view, the school personnel administrator is automatically a "father surrogate" to his staff, regardless of his personal desires. To function in this imposed role he needs a great deal of insight and understanding concerning the psychology of the total school staff and a clear understanding of the personality structures of the many leaders within the group. By their actions, staff members reflect the reactions and attitudes they originally had toward their parents. The feelings are unconsciously transferred to the administrator; and depending upon the amount of insight he has, the results are either good or bad. This isolated phenomenon of transference, taken from the total context of the basic psychology of an individual, may be difficult to accept. However, we have learned that individuals rather consistently tend to repeat the same mode of interaction with figures in authority. The pattern developed in childhood is used with only minor variations as they progress from one identifying figure to another.

For example, there may be within the school system a principal who harbored extremely hostile feelings toward his father, and whose actions indicate rejection of higher administrator authority because of transference of the father image. Only through close observation of the principal's behavior patterns does it become clear that his overt reactions do not represent his true feelings about the administrator. Another principal may have enjoyed a comfortable relationship with his father and found during the process of growing up that it was easy to transfer his positive feelings to other adult figures in authority. In the school system he is able to accept the controls required by a large organization. He shows respect for the points of view expressed by others. Between these two extremes are many variations that may apply to any and all members of the work force.

It is profitable to the administrator in time, money, and energy to understand different types of personalities and to make use of their strengths. He can find many answers if he has the courage to look into his own personality to see how much he contributes to a continuation of the misconceptions, misidentifications, and misunderstandings that he discovers in the people working with him.

A related area of interaction concerns the sibling roles of staff members --the vacillation between cooperation and competition for the sake of acceptance and approval by higher authority; the struggle for promotion, higher salaries, and special privilege. Although this struggle is not unique to the school, we become truly concerned when this rivalry begins to show destructive tendencies.

Let's turn again to the principal for an example. If he were an only child, the center of family attention and over-sheltered in personal associations, he has the difficult problem as a member of a large work force of learning to cope with siblings of all ages and temperaments. He may be guilty of thoughtless, self-centered action simply because he has never learned to hear and see the needs of others.

Another principal may have been the oldest sibling in the family. As such he may be so accustomed to making decisions that he finds it scarcely worth his time to solicit the opinions of others. On the other hand, if he were the youngest child he may encourage protective treatment from others and find his dependency role very pleasing.

The ability to accept staff members for what they are--to recognize their assets, liabilities, and potentials--should be the goal of every administrator. He should realize that through him these individuals may be able to reach an even higher level of competency and ability.

In another area, a consideration of the effects of every-day experiences on himself and on his staff could also lead an administrator toward greater understanding of himself and his staff. Whereas allowances are generally made for performance when physically ill, allowances are seldom made for those under emotional stress. Illness in the family, marital problems, or children in trouble will also adversely affect performance and personality. My plea is that the administrator learn enough about the people with whom he works so that he can by-pass their temporary or permanent weaknesses and capitalize on their strengths.

It is also necessary to be sensitive to the different orientations and professional language of staff members. The older ones, feeling secure in the wisdom garnered from long, hard experience, may resent the infringement of new administrators and new approaches. The quiet unfolding of well-designed plans can demonstrate the value of a basic theory as well as the competency of the operator.

The second tool of an effective administrator is objectivity. When confronted with a problem, the administrator must first of all be able to appraise a situation with a maximum degree of objectivity and sensitivity and then he must choose a course of action and follow it through. He must look at a situation impersonally, without feeling or bias, from an external vantage point; then raise the lid to scan the internal structure, to perceive and interpret the behavior of persons involved and the possible precipitating factors and anticipated reactions.

Sincere empathy for all staff members softens the robot quality of pure objectivity, and through it one is able to recognize the feelings of others without the emotional involvement of sympathy. A kind, understanding word can accomplish more than directives from the front office. Basically, most persons in leadership positions know this, but under pressure of work forget or excuse themselves from taking such constructive action.

I shall touch briefly on sensitivity, the final tool at the administrator's disposal. It can serve in every area of his work if he is equipped to receive and interpret the message sent. It implies more than collection of facts and figures. Information must be sorted and judged, and plans for action formulated. A two-way communication between administrator and staff and between the administrator and every other community group is essential. Intellectualizing within the confines of an office can prevent many painful and disappointing experiences from happening, but in such isolation little that is constructive can be produced. The administrative role must be one of people-to-people, rather than person-to-paper.

As a practical example of the application of all factors discussed, consider what happens in the selection of qualified employees. Selection is based on three sources of information: data submitted by the applicant, information gathered from the interview, and the interpretation of what is read and seen.

The latter rarely provides the valuable information they could include.

The actual interview provides opportunity to observe personal appearance, mannerism, and voice of the applicant, and can provide leads to possible anxiety as well as his sensitivity and types of defenses used to adjust to the world. Does he repress, rationalize or deny facts gathered from other sources, or does he tend to exhibit great tension by revealing too much too fast?

Interpretation of the assembled data is based on the school personnel administrator's reaction to the interviewee, plus his knowledge of personality characteristics and growth. In general, having established the facts of educational background and aptitude for the job opening, the administrator looks for balanced individuals who are neither too much in love with themselves or too self-effacing. There are only a few guidelines for interviewing, and they involve the same human factors that serve every other area of concern--knowledge, objectivity, and sensitivity.

After selection of staff members, administrators are faced with the problems of integrating the new personnel into the work force. Common problems that may arise are: struggle with authority figures, over-dependency on authority, or inability to become a part of the team. Early identification of personality problems can ease tense situations before they become explosive.

Individuals trying to adjust to a group communicate their difficulties by a variety of emotional signals. A few of the common signs are: change in general patterns of behavior, atypical withdrawal from activities, uncharacteristic increase of irritability, excessive complaining, and jealousy of others.

In conclusion, now, let me urge you to make use of all the available tools to insure a healthy environment within the school for teachers, children, and allied workers alike. Our fund of knowledge about human behavior is increasing steadily as those involved in general and social psychiatry continue to chip away at the vast unexplored blocks of human experience. Research must and will continue in the hope that some day we will better understand how we actually function within our own framework. Until then, attend closely to the subtleties of human interaction. Listen for the smooth music of the well-tuned operation, but be ready to perceive, understand, and to proffer help at the appropriate time when the first grating sound of difficulty appears. The effective administrator can thereby make his role the keystone in the entire school structure.

PRACTICAL APPLICATIONS OF PSYCHOLOGY TO SCHOOL PERSONNEL ADMINISTRATION

Carroll L. Lang

I wish, first, that I were as articulate as Dr. Greenwood and, second, that I possessed as many insights into the causes of behavior patterns. We should give him a vote of thanks for projecting the image of the personnel administrator in a manner acceptable to most of us.

I would concur with each point made. I believe it quite logical for a psychologist to emphasize the role of the interview, and I am sure that each of us can improve his interview techniques with increased knowledge and increased practice. In my judgment this is one of the chief skills of the effective personnel administrator.

The growing militancy of employee groups is changing some of our personnel procedures by requiring us to codify those procedures. The more codification that takes place, the less we are able to take into account the psychological needs of the individual and the interaction of two or more individuals. I am referring specifically to the promotion heavily based on seniority and the arbitrary transfer of individuals from one type of school to another.

Of course, the legislature in our state is making job security a prime objective. In turn, this makes it easier to live with a marginal employee than to go through dismissal proceedings.

Other examples may be given, but I am sure this audience knows that employee groups, the boosters club, the conservatives and the radicals, the service clubs and taxpayers groups are quite apt to leave some psychological bruises as we struggle with our responsibilities.

As I view the psychologist's role in personnel administration, I see three specific areas in which we use his guidance and the fruits of his research:

1. In devising screening instruments that are discerning in sorting out elements of personality, achievement and interest within an applicant's total personality so that objective measure may be a part of the total employment procedure.

2. In counseling personnel who will benefit by the catharsis of having a professional person on whom to depend when his problems are interfering with his production, and

3. In assigning administrators, teachers, and classified employees so that they are best able to function to the optimum development of which they are capable.

I plan to identify 16 practices which are common to our personnel function and identify some of the psychological principles inherent in the practices. I am sure that any of you could add to or enlarge upon the comments which follow, but if we can point out that the psychologist has some tips for school personnel administrators, this paper will serve its purpose.

1. Training. Generally the personnel administrator has no responsibility for the training of teachers or other persons whose employment he recommends; yet he must be able to appraise the products of such training. Also, he must have some basis for making a judgment that the person to be employed has an adequate working knowledge of the theories of learning so that he may be an effective teacher.

I believe that the concept of the intern program is gaining momentum. While I am most familiar with this development at the teaching level, I believe that it may have its greatest potential at the administrative level. I must confess that I am lukewarm about the typical intern experience, and I am not sure that the psychologist would support that kind of training program. However, if the intern experience meant an early identification of the teaching interest of a person and provided, say, a teaching aid experience which would be followed with a student teaching experience, then I would be an enthusiastic supporter of the intern program. A similar sequence of intern experience would be equally valuable for potential administrators.

2. Recruitment. All around the country I see that districts are becoming increasingly sophisticated in merchandising their districts, their beautiful school plants, their professional services, their good personnel policies, their fringe benefits, their salary schedule, and their inviting of teacher participation in curriculum planning, as well as in-service training and budget making. Accent is on the positive today. This is in accordance with psychological principles.

3. Selection. The use of job descriptions for the teaching assignment and the use of tests for teachers and classified personnel selection will likely become an increasingly sensitive area. The so-called "eyeball" test for personnel selection may be on its way out. I believe that the psychologist can help us in developing and validating tests in all areas, and I can believe that in some areas projective techniques must be used. Such tests will have to be administered by someone trained in psychology.

4. Interview. The employment interview is perhaps the one most important aspect of our operations in which knowledge of psychology is necessary. To be able to put our applicants at ease, to ask significant questions, to follow up guarded answers, to take tips from the clues one gets, and to terminate the interview so that it is satisfying to both the interviewer and the applicant, requires skills which many of us still are trying to master.

5. Assignment. I am sure that most of us have learned that we don't assign all of our old teachers to one building, or new ones to another, or misfits in another, and so on. I suppose that by trial and error we have found it expedient to plan for balanced staffs, age-wise, sex-wise, ability-wise and so on. At the same time, there are those personality factors of teacher and administrator which should be taken into consideration. Personally, I am not convinced that one teacher can be a superior teacher or even a good teacher in every situation. This may be another example in which the cultural pattern may take precedence over research or the recommendations of the psychologist.

6. In-service Training. The best in-service training program that has

come to my attention is in Montebello. This may be an unfair evaluation of the program, but as I understand it, teachers are queried in the fall about the areas in which they feel they need additional help. The director of inservice training organizes these requests in general areas or classes, then makes a tentative course outline for the class. The central staff then tries to identify the person in the area--whether he be a college faculty member or a teacher in that district or in another district--who is best qualified to teach a course. This procedure appears to me to be in accordance with the best thinking of the psychologist.

7. Compensation. It would be very difficult for me to defend the rationale of the typical salary schedule. I am not sure that we can say that a person reaches his peak performance ten or fifteen years after he begins teaching, or that there is a high correlation between the amount of training and teaching performance. Not infrequently those at the top of the schedule are, for various reasons, no longer as effective as in earlier years. Further, I don't believe that there is a job in America in which every person may begin at the bottom step of a salary schedule and have a built-in and guaranteed maximum salary of, say, $10,000. While some of us may have some clauses in our contracts which indicate that advancement on the salary schedule is contingent upon superior or even satisfactory service, seldom do we believe those clauses to be worth enforcing.

But there is another dimension to compensation. Some districts, because of attractive working conditions, may offer compensations money cannot buy, while others have conditions where teachers do not wish to work regardless of salary. I believe that the psychologist would say there are several aspects to be considered in compensation, and the personnel administrator had better be concerned with all.

8. Fringe benefits. I am firmly convinced that the principles of the fringe benefits are consistent with the principles of psychology, particularly in the areas of employee morale, attitude and loyalty toward one's job and the struggle for self-realization. These arguments would exclude the fact that even now industry has more fringe benefits than does education, and without those few which we have, recruitment to the profession might be even more difficult.

9. Employee association. I believe that the psychologist could identify psychological reasons for recent developments in the role played by employee organizations, and the sociologist would have a contribution to make, too. As we have already pointed out in this conference, these facts may indicate that there may be a new kind of person entering the teaching profession.

10. Work load. Work load has many dimensions, some simple and some complicated. A survey group in Long Beach was surprised to learn that noon yard duty was the most disagreeable part of the teacher's assignment. Apparently the teachers resisted eating their lunch in a hurry, then getting wind-blown and dirty standing on the playground. They would not have time to collect their thoughts and rearrange their hair before the next class began. In recent times there has been discussion about relieving teachers of money collections and even attendance accounting. Youngsters with emotional problems pose a work load different from normal ones, and some teachers are better at handling some

kinds of problems than others. I believe that the psychologist can help us a lot in seeking solutions to the many problems associated with work load.

11. Instructional technology. I am sure that the time is rapidly approaching when we must redefine the role of the teacher. There are many things a machine can do better, and perhaps more cheaply, than a teacher, and I believe that the profession should move forthrightly in this direction if the research from the psychologists is valid.

12. Retirement. In order to prepare for retirement, I would like to see a person taper off rather than cut off at retirement. If we could work out a way, for example, for a person to teach four periods a day during his next-to-last year prior to retirement, he may be able to slow down. The shock won't be so great. I have a feeling that the psychologist may endorse such a policy.

13. Employee counseling. It is my understanding that there are many business and manufacturing firms which maintain a counseling staff for their employees. When asked if such a service would be a suitable one for the public schools, the response of business executives was that it has paid dividends for them and they could see no reason why it should not be even more important for persons who work around children.

14. Leaves of absence. I will refer particularly to leaves of absence for health reasons. It must have been a psychologist who thought of the first one and I am sure that our lives have been made more pleasant because we have been able to grant leaves to some of our staff who needed to be removed from the classroom for a while.

15. Evaluation. Perhaps one of the finest innovations in school personnel administration is the written evaluation which both the employee and the administrator sign. The attempt is to remove suspicion, to build confidence, to prove the merit of open communication channels. Any evaluation is apt to pose a confrontation to some, and in some instances it may not be pleasant; nevertheless it can be honest, kind and subject to review.

16. Separation. We have found the exit interview a good device for identifying some problems in the district. Since a person knows that he is going to leave the district, he is more apt to talk freely to a sympathetic listener. Meaningful clues may be gained from such an experience.

To summarize these points is to say that the psychologist has a lot to offer the school personnel administrator, but we haven't established a very good communication channel. It appears to me that business and industry tend to use psychologists more than do the educators. I would guess that educators will have had more training in psychology than the person in the typical business establishment, but I believe that we can profit from some of the findings in this discipline.

CONTRIBUTIONS FROM BUSINESS ADMINISTRATION RESEARCH TO IMPROVED PERSONNEL ADMINISTRATION

Wilmar F. Bernthal

The purpose of this paper is to analyze current issues and research in the human aspects of business administration for implications of significance to school personnel administration. The three facets considered are: (1) the traditional personnel functions, (2) behavioral science concepts and research findings relating to behavior of people in organizations, and (3) forces in the administrator himself which condition his behavior in relation to others in an organizational hierarchy.

The "State of the Art" of Traditional Personnel Administration

The traditional approach to personnel management emphasized the study of (1) job efficiency, which provided objective standards of performance as a basis for wage payment, and (2) "fire-fighting" techniques, to cope with labor shortages and organized labor's counterpressures to management.

At present there appears to be dissatisfaction with these traditional approaches to some of the personnel administration functions. In the employment function the emerging trend is toward the selection of higher level personnel by using devices more sophisticated than empirically-developed paper and pencil tests. Projective tests administered by professionals are now being used and some experimentation with sociometric methods such as peer ratings is being conducted.

Pressures and conflicts in labor-management training relations and new insights into resolving human problems at the workplace, as shown by the Hawthorne studies, led to a rash of middle management training programs in the post-World War II era. Academically oriented, these programs often failed to show positive results. The question of what to do in the supervisory function is still unresolved, although much has been learned about what not to do.

The strongest trend is in the area of personnel appraisal and is away from the concept of personnel control, toward the behavioral approach which emphasizes motivation by helping the subordinate to improve performance. It is highly supportive rather than threatening and is designed to develop a cooperative relationship between management and subordinates in pursuit of a common goal.[1]

The most hopeful sign is a renewed concern about quantitative evaluation of personnel practices, and the resultant validation of techniques and upgrading of decision-making. These measures are beginning to be used to justify personnel actions in terms of performance payoff.[2]

Behavioral Science Contribution to Business Management

The major contribution of behavioral science to business management is its view of business as a social system. Research has been focused not so much on finding abilities as on determining the willingness of man to work productively, with emphasis placed not upon man in isolation but man in a social setting.

Furthermore, behavioral science research stresses empirical (real-life) data resulting from controlled observation. Current organizational study concentrates on the activities, interactions and sentiments of the personnel, which alternately produce the real (or emergent) behavior that determines the organization's productivity, the growth and development of the participants, and their satisfactions.

Research focus in the small group. From the time of the Hawthorne studies, business management theorists have looked to the sociologist and social psychologist for clues on how to effectively integrate small group behavior into a productive organization.[3]

Abraham Zaleznik found that acceptance by the group, rather than any reward management could offer, was the key motivator of behavior. Some small group studies have focused on (1) dynamics, (2) communication patterns in differently structured groups and on (3) laboratory learning for improving interpersonal effectiveness of the manager.[4]

"The Michigan Studies" under Rensis Likert have considered the attitudes and behavior of first-line supervisors to determine how these affect the productivity of their subordinates.[5]

"The Pittsburgh Studies" conducted by Frederick Herzberg identified "hygienic" factors such as pay, fringe benefits and working conditions which, if inadequate, become dissatisfiers, but when properly administered have no important positive effect on performance. On the other hand, motivators are found to be factors of achievement, recognition, responsibility, growth, advancement, and other matters associated with the self-actualization of the individual on the job.[6]

The studies in the Yale Technology Project concerning the worker and the foreman on the assembly line served to pinpoint the human consequences of high task specialization in repetitive work, and gave rise to a new concern about job enlargement as a possible antidote to the deadening monotony of repetitive work.[7]

Management Philosophy and Management Practice

Modern organization theorists are studying organizational behavior from an interdisciplinary point of view. The behavioral sciences are prominent in this approach.[8]

Chris Argyris contends that there is an inherent conflict between a healthy personality and the demands made upon him by traditional organizational practices. By imposing uniformity of action and restricting freedom of behavior, Argyris claims, managers are using human potential inefficiently, and are paying a heavy price in terms of absenteeism, turnover, apathy, goldbricking, and other forms of overt rebellion.[9]

Douglas McGregor suggests that organizations discard apparent assumptions about behavior that (1) people don't like to work, (2) management's job is to make them work, and (3) most people prefer to have their life structures for them, to be directed, to avoid responsibility. He suggests the alternative assumptions that (1) people do not dislike work but seek out responsibility and dedicate themselves to objectives in which they see the possibility of psychological, social and economic reward, (2) the manager needs to recognize the interdependence between himself and subordinates, and (3) his job is to structure an environment in which people can commit themselves to the organization's objectives and exercise freedom and self control in working toward these objectives.[10]

Victor Thompson theorizes that traditionally oriented managers face the dilemma of trying to assert their right to command based on organizational position in the face of increasing power of subordinates based on highly specialized skill and essentiality of function. Thompson suggests that the manager in a complex organization is more dependent upon knowledgeable personnel specialists than they are dependent upon him, and that some system of colleague authority must replace the traditional superior-subordinate authority system.[11]

The Manager in Transition

With the apparent decline of formal authority, business organizations are searching for the key to developing managers in new patterns of management. Yet the need for conformity, certainty, and control causes business managers to cling to traditional management approaches in spite of the evidence of its ineffectiveness. Consequently, attempts at supervisory human relations training have met with an unwillingness to discard traditional practices. The result has been a manipulative or puppeteering approach to management, often in the name of "good human relations," which has backfired in practice and has made even legitimate attempts at improved human relations suspect in the eyes of those affected by them.

Toward Enlightened Management Philosophies

The traditional line-staff organizational concept is receiving a critical look from management theorists. The concept that the "line" function is to decide and order, and "staff" is to furnish specialized service only, does not hold in modern business practice. The realities of organizational life suggests that staff specialists have considerable power, and that the authority of the line manager does not necessarily determine decisions and actions. Some theorists suggest that the staff needs to play a supportive or consultant role in dealing with line managers, rather than acting as a controller or policeman;[12] others emphasize the need to hold staff accountable for the ultimate results of the "advice."[13] Still others consider traditional line-staff concepts obsolete, and suggest that project management, a task force approach, or other forms of functional teamwork be attempted.[14]

Barriers in the Manager Himself

Barriers to the transition from traditional to modern management practices lie in the fact that the traditional positions draw men high in authoritarianism who have perpetuated a similar breed of managers in their organizations. This problem suggests that research needs to stress the selection and training of managers. The trend in management training is toward more ego-involvement of the trainee using vicarious experience through such techniques as the case study, the incident method, role playing, and stimulation exercises;[15] and to improve management behavior directly by helping the manager develop greater self-awareness and social sensitivity.

Current experiments in using laboratory training ("t-group" or sensitivity training) indicates a movement by industry toward influencing management behavior directly. Starting with the experimental programs of the National Training Laboratory for Group Development in Bethel, Maine, in 1947, there has accumulated an impressive amount of experience and research data which indicates that laboratory training may be a major forward step in bridging the gap between behavioral science knowledge and management practice.[16]

New insights into human behavior present difficult ethical issues concerning the extent to which attempts should be made to transform managers' personalities in the interests of organizational performance. Psycho-therapy and psychoanalysis already are in use, and the impending revolution in biochemistry and bionics may make it physically possible to alter the personality and behavior of human resources. The question remains as to whether these steps are morally or ethically defensible.

In Conclusion

Business organizations and school systems have much in common in their personnel administration research and practice. However, two significant differences are: (1) business efficiency can be tested in the market place, whereas no such test is available for the relatively intangible service of education, and (2) much personnel administration in business firms is concerned with larger numbers of unskilled or semi-skilled employees.

The certificated staff in the school system have a high level of ability, knowledge, mobility, security; they are personally specialized, and thus can exercise considerable power as a counterforce to administrators' attempts to exercise formal authority.

The world of education has at its disposal a large amount of research information from educational psychology which should be utilized. Perceptive administration thus will look to its own context as well as to outside disciplines for guidance in development of personnel practices and procedures. Progress in school personnel administration needs to proceed on all fronts --in the improvement of the administration of the traditional personnel functions, in incorporating new concepts from behavioral science into administrative thinking, and in selecting and developing people for administrative roles.

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RESPONSE TO BERNTHAL

Ellis B. Page

It is fitting that Professor Bernthal should speak of business administration to this group, since business and educational administration are surely sister disciplines, sharing many concerns and generalizations. And Professor Bernthal's paper has much to suggest to us.

One point he brought out was the increased use of *quantitative* techniques in personnel decision-making and evaluation. Almost everywhere in education, we have found that objective predictions based upon measures combined in multivariate ways have been superior to subjective predictions based upon the same data. In personnel work we need to be especially aware of this sort of failure of subjectivity.

Another important point was that the most important gift of behavioral science to administration is the behavioral *method*. The findings of other sciences are often valuable in their suggestion for our field, but it is the *methods* of investigation, the *attitudes* toward the field, and the *concepts* of scientific discovery which have proved most valuable. If you like, we have not so much learned principles from other disciplines, as learned how to discover principles within our own discipline.

It is interesting that representatives of the highest management and middle management have often regarded *their* level of operation, their decision strategy, as too subtle and rational to be successfully analyzed by the scientist. Yet behavioral science is steadily moving upward in its analysis. This same development seems to be occurring in education. The earliest investigations were all about the students. It was their differences, their abilities, achievements, and behaviors which seemed subject to analysis, prediction, and control. Consequently "learning theory," since it concentrated on the student, was the usual psychological approach to education.

Now times are altered. We find increased concentration on higher levels of the educational hierarchy. The Ryans study of teacher characteristics, and a number of contributions to the Gage *Handbook of Research on Teaching* (Chicago: Rand-McNally, 1963), demonstrate this shift. Our concern is now not solely with understanding students, but with understanding teachers; and our behavioral theory encompasses not only theories of learning, but theories of instruction. This present meeting represents a movement still further up the hierarchy to the study of principles and beyond, and to theories of administrative behavior, together with the interest in teachers.

A great danger in analyzing teacher behavior is oversimplification. We need to beware of oversimplicity on one hand, and of futilitarianism on the other. Too often, since we are interested in a particular relationship and indeed find it present, we assume that the variable we happen to be interested in is the cause of the teacher's behavior. This trap can be avoided if we keep pushing toward a *representative* research design, if we keep in mind that our goal is *generalization* of the broadest and most rigorous sort. And to find these goals we need to have a realistic complexity in our design, or a valid randomness in our sampling.

The relation between business and educational administration, then, faces some of the same problems as the relation between pure and applied science. The "pure" scientist, for example, will sometimes imagine that he has represented an important variable when he has merely found something which the variable name might be said to cover. One important example, which I have examined in detail elsewhere ("Behavioral Theory, Verbal Magic, and Education," *Educational Theory*, 1962, 7, 73-78), is the effort to make generalizations about "punishment" using laboratory rats. It is true that the word "punishment" may reasonably describe what we do to the rats, but this does not mean that the conditions necessary to formulating a general law about punishment are reasonably met. And the difficulty is not just in the differences between rats and human subjects. This would only be a matter of sampling of *subjects*--important, yes, but not by any means the whole story. What is equally important for valid generalization is sampling of *conditions*, or *situations*.

Now both business and educational administration deal with human subjects (though these are sometimes different in important ways). The problem remains to make sure, before generalizations are taken literally and acted upon, that the general situations and conditions are also comparable from discipline to discipline. In the meantime, however, we may make rich inferences and insights from such a presentation as Bernthal's.

RESPONSE TO BERNTHAL

Richard C. Lonsdale

I'm sure that the people who received their formal training before 1950 didn't have anything in their doctoral work that bore very much upon the impact of behavioral science on education. Where have they gotten it since? On the job! This has had to be part of their inservice development for those trained, or receiving most of their formal training, before 1950 or maybe even before 1955. I want to emphasize this point. What Prof. Bernthal has reviewed for us isn't esoteric knowledge. It isn't knowledge of which you can say, "I finished by graduate work so many years ago and I'll just never get that." The answer is, it's there to be gotten! It's not so abstruse as to be unintelligible if one reads it on his own and studies it. One can get hold of and master this kind of material from the behavioral sciences and make application of it.

Some specific suggestions: First, a comment was made yesterday about the difficulty of communication due to the fact that social scientists and others familiar with their area use a different language. My recommendation is learn their language! For instance how many of these terms are familiar to you: "transistor," "thermonuclear reaction," "jet propulsion," "lunar probe," "red shift," "orbital flight"? Inevitably you recognize a number of them. How did you learn them? You learned them on the job. You learned them by reading and studying. You picked up the jargon of our modern scientific technology of space as you went along. You don't expect scientists to use a phrase other than "orbital flight" if this properly describes a given trajectory of a satellite around the world. You learn their language. When, then, is it not just as legitimate that you learn what is meant by "manifest" and "latent" roles, "cosmopolitan" and "local," "nomothetic" and "ideographic," "informal organization," "feedback loop," and "role conflict"? Many terms in the social sciences are familiar, but others which are not can be learned. Learn the language so you can the better communicate.

Second, take out a personal subscription to the Harvard Business Review, the Public Administration Review, and the Executive Action Letter. Don't charge it to the school district, because it's too easy never to read it if you get a journal that's charged to the school. These journals may be had for $15 or $20 a year for the three, and all will contain articles both practical and interesting. The Executive Action Letter is devoted to the "conversion of knowledge to action" that we are talking about.

Third, if you can, hire a school psychologist or psychiatrist to be available for the psychological counseling of adult employees, including administrators, as well as pupils. Fourth, in your judgment of research keep in mind the fact that today significant research in educational administration is theoretically based. It is based upon theoretical assumptions or concepts or a whole structure which you might then call a theory. Mere fact-banking or systematic data collecting or the familiar questionnaire survey is no longer significant research in educational administration although it may be worthwhile professional activity.

Fifth, by way of a possible research project, invite some researchers to study the nature of your motivation-incentive system in your school district, especially the unofficial rewards system. (See Melville Dalton's Men Who Manage.) Indeed, this whole question of motivation is going to be one of the central concerns for all of us in the years ahead.

Sixth, if you really want to make a change, if you really want to infuse your whole staff with some of the understanding set forth in the Bernthal paper, you'd better go at it as a total system project over a long period of time. By "long" I mean three to five years. Experiment with ways of involving the whole organization over a long period of time in a genuine process of change in which you try to involve people in such a way that they learn to behave differently.

SEMINAR EVALUATION

The findings in this section were obtained through personal interviews with each participant and consultant. The interviews were conducted immediately prior to the culmination of the seminar by members of the resident staff and area panel recorders. Fifteen questions were asked of the participants and consultants. They included items on seminar organization, seminar objectives, communication and information, lodging and subsistence arrangements, seminar content, consultants' papers, effectiveness of the papers, area panel activities, area panel organization, seminar strengths and weaknesses, and functions of research in personnel administration.

The instrument utilized and the accumulated responses are found in the appendix. Some of the more pertinent items and responses are listed below:

1. To the question, "What did you understand the objectives of the seminar to be from our early communications?", 53 per cent of the respondents said (a) to identify problems in school personnel administration in need of research, or (b) to find ways of closing the gap between research and practice. Other responses included (a) to explore liaison techniques between practitioners and researchers in personnel administration, 13 per cent, (b) to suggest areas in personnel administration in need of improvement, 7 per cent, or (c) combinations of the above, 13 per cent.

2. To the statement, "Please react to the area panel activities in terms of their achieving the seminar objectives.", 72 per cent of the respondents indicated that the accomplishments of the panels were very good or excellent; 16 per cent of the respondents said the accomplishments were only fair in terms of achieving the seminar objectives.

3. 78 per cent of the respondents indicated they would be willing to engage in personnel action research and listed areas of interest such as the following: (a) teacher morale, (b) staff utilization, (c) teacher evaluation, *(d) in-service training*, (e) selection, training, and appraisal of administrative staff, and (f) teacher organization-administrative relationships.

4. To the question, "As a result of your experience in the seminar, how do you view the function of research in the personnel field?", respondents listed the following: (a) ultimate improvement of instruction, (b) identification of valuable practices, (c) assistance in applications of theory, (d) provision for initiating change, and (e) identification of areas in need of remedial action.

The summated responses of all participants are found in the appendix, and furnish information regarding additional aspects of the research and development seminar. These additional aspects are omitted in this section because of their indirect relationship to bridging the gap between research and practice in school personnel administration. Some of the findings in the evaluative process are included in the subsequent section on corollary seminar outcomes.

COROLLARY SEMINAR OUTCOMES

In conjunction with the research and development seminar activity, several additional findings were obtained. These corollary outcomes were indirectly related to the seminar objectives, but the nature of these findings were of such asset value beyond the objectives that their description is included herein. These findings were extrapolated from the interviews conducted during the seminar evaluation and obtained through observation and appraisal by consultants, participants, and resident staff.

Professional Outcomes

Several corollary outcomes were obtained from the research and development activity which are classified as pertinent to the professional practices and development of school personnel administration.

Interchange of ideas. The research and development activity provided many opportunities for an exchange of ideas relating to policy, theory, practice, and research among the participants in the seminar. Each participant was given several structured and unstructured activities which engendered extensive and valuable idea exchanges.

Research orientation. The research and development seminar stimulated an acquaintance with research in school personnel administration on the part of the seminar participants. Prior to the seminar, a compendium of research studies in school personnel administration was distributed to each participant. This document was shown to be of value in familiarizing seminar participants with current and recent research findings. Further, the consultant staff contributed additional research information and orientation which was of value to participants in the seminar.

Appraisal of practices. The interchange of ideas and the research orientation promulgated an appraisal of existing practices in school personnel administration on the part of seminar participants. Involvement in the activities of the research and development seminar furnished an environment for the participants to evaluate policies and practices as related to theory and provided a basis for fostering change in the administrative functioning of school personnel services. The opportunity for participants to work with research specialists, to become familiar with research literature, to consult with university personnel proved to be a worthwhile experience in terms of initiating improvement in school personnel administration.

Continuance of research. The research and development seminar contributed several "next-step" formulations for improving the practice of school personnel administration. The findings of pertinence were as follows:

1. For greater liaison between research findings and existing practices, Arizona State University or some other university was suggested as a possible center for research in personnel administration. Such a center would be active in sponsoring and conducting research activities designed to improve school personnel administration, and would disseminate pertinent findings to effect desirable changes.

2. Areas of needed emphasis were identified which were subsequently developed as research possibilities and proposals. Three such proposals which were developed and structured as "next-steps" in the development of school personnel administration are as follows:

(a) "What should prospective elementary and secondary teachers be taught and what pre-professional experiences should they have concerning professional organizations, unions, school board and administrator relationships?"

The objectives of this proposal included: (1) to establish the place and importance of professional organizations and services in the teaching profession. (2) to develop a body of facts concerning existing professional and union organizations with which teachers will likely be associated. (3) to set forth the pertinent principles and policies of the organizations that will permit prospective teachers to understand the aims and purposes of the organizations and their working relationships. (4) to set forth the responsibilities and governing functions of school boards and the legal and professional relationships of teachers to boards. (5) to describe the functions and responsibilities of school administration and the legal and professional relationships of teachers to administrators. (6) to set up a series of pre-professional experiences that will provide demonstration and laboratory experiences related to the above objectives.

(b) "How are breakdowns in teacher-employer relations predicted and corrected?" This research is aimed at identifying the conditions antecedent to teacher-employer breakdowns in normal school operation, at identifying the techniques associated with successful restoration of such relationships, and at making reasonable inferences about the prevention of these situations.

The objectives of this proposal included the following: (1) To identify, by interview and by study of the literature, researchable hypotheses concerning the usual conditions antecedent to breakdowns in normal school operation. (2) To identify, from a population of school systems, those in which such breakdowns, as judged by independent experts, have occurred. (3) To collect, concerning the "breakdown" systems, all data of interest from the hypotheses generated in #1 above, and other data concerning the general structure and characteristics of the school system. To repeat this process of data collection from a comparison sample of systems, here called "non-breakdown" systems, matched on general characteristics such as size, location, etc. These systems may be here designated B (breakdown) and NB (non-breakdown). (4) To scale the data collected in such a way as to make possible ordinary regression analysis; then to perform such multivariate analysis as will reveal the clusters of conditions most suggestive of potential breakdown. (5) From the foregoing analysis, to list the most appropriate "symptoms" of forthcoming trouble, for the reference of school administrators.

(c) "What are the effects upon the functions and the status of the chief executive officer (superintendent) of the local board of education which is operating under either of the following agreement patterns with its teaching staff: (1) a professional negotiations agreement, or (2) a collective bargaining agreement?"

The principal objective of this proposal is to assess the changes experienced in the functions of the superintendent in the several components of the administrative process caused by the relationships under the agreement. A secondary objective is to assess within judgmental limits the effects upon the status of the superintendent as a professional leader.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

Conclusions from this research and development activity are based on the findings relating to each of the objectives. This chapter is organized into four parts. The first two parts include conclusions and implications related to (1) techniques of bridging the gap between research and practice in school personnel administration, and (2) identified areas in school personnel administration in need of research. The third part includes conclusions related to the seminar activity and the findings derived from the participating personnel. The fourth part consists of conclusions based on findings which relate to the function of research in personnel administration and the outlook in personnel administration research. Recommendations based on the conclusions are included in this chapter, and are presented concurrently with the conclusions in each of the four chapter parts. Conclusions and implications in this chapter are based upon the seminar findings, research literature, area panel findings which were carefully documented.

Conclusions related to bridging the gap between research and practice

The first of the objectives of the research and development activity, "to determine possible techniques of bridging the gap between existing research and practice in school personnel administration," is the focus of the following set of conclusions. Conclusions on bridging the gap between research and practice are organized into three parts: (1) conclusions on disseminating research in personnel administration, (2) conclusions on organizational responsibilities, and (3) other conclusions on the process of bridging the gap.

Conclusions on the dissemination of research. One of the major difficulties encountered in school personnel administration is the maintenance of close relationships with new knowledge and research findings. The problem of guiding the development of practices by the use of research is a problem of consequence to the practitioner who is beset with many responsibilities which obstruct the learning of significant research findings.

To effectively aid the practitioner in school personnel administration, some system or means of research classification needs to be developed. The classification system should compare to other informational classification systems, such as the Dewey decimal system or the Library of Congress classification system. Data-processing procedures and techniques could be utilized in such a way so that the classification of research studies and materials would be accomplished easily. The classification system, if applied adequately to past, current, or future research, would greatly facilitate improvement of the process of locating or identifying desired research information.

Greater emphasis within the profession of educational administration needs to be applied to personnel services. This emphasis should be directed to the interpretation of research findings for increased accessibility to school personnel administrators. Some method of developing awareness for the meaningful application of personnel administration research should be developed early in the process of bridging the gap between research and practice. A program of inservice professional development designed to intensify the utilization of personnel administration research would be an appropriate undertaking for associations in educational administration. University training programs in educational administration also should emphasize the use of significant research findings in personnel administration.

To further effectuate the dissemination of research findings into practice, other means for easily locating available research should be created. Published bibliographies of research materials in school personnel administration should be developed and widely distributed among practitioners in school personnel administration. Such bibliographies would be a valuable resource to members of the profession seeking knowledge about research activity. Annotations related to each entry would make a quick reference to persons desiring information, and would eliminate present procedures of slow, difficult, and often unfruitful searching for such research information.

The distribution and dissemination of research information could be greatly improved if some central agency were responsible for gathering, classifying, and disseminating research pertaining to school personnel administration. Examples of central agencies which could provide such valuable assistance in the distribution of research include the U. S. Office of Education, a professional organization such as the National Education Association or the American Federation of Teachers, a group of universities working in collaboration such as the University Council on Educational Administration, or one university which has developed and adequately staffed a research center for the expressed purpose of dealing with the many problems in conducting, classifying, and distributing research in school personnel administration.

The research center is an example of one of the most promising ways of bridging the gap between research and practice in school personnel administration. Such centers would be located in several areas of the United States so that school personnel administrators would be in relative proximity to at least one center for personnel research. The centers in close cooperation with selected districts would conduct extensive research in personnel services and would develop procedures for innovating and implementing research into practice. The advantages of these research centers would include: renewed and continued emphasis on the values of empirical research, broad and comprehensive programs of research investigation, interpretation and dissemination of research findings, perpetual collection, classification, and maintenance of research information, and provision for applications and experimentation of administrative theory. In addition to the "clearing house" aspects of accumulating research and communicating research to practitioners, the center would provide an excellent opportunity and environment for training administrators for entrance into the profession of personnel service. This altruistic dimension would be further augmented by the articulation among disciplines, such as the behavioral sciences and social sciences, wherein such interdisciplinary theory and research could be readily implemented into utilization in personnel administration. The research centers, most appropriately located in universities, would also provide for the identification of needed research in personnel administration, thereby contributing significantly to the improvement of services and the betterment of the teaching-learning situation.

There is also a growing need and demand for some method for adequately communicating the body of research information in existence, as well as communicating the need for additional research in school personnel administration. One idea of merit in accomplishing this purpose is that of establishing a professional journal or periodical which would contain abstracts of existing research, suggestions for research studies, titles of and means for obtaining resource materials in personnel administration, and published analyses of practice, innovation, and personnel problems, issues, and case studies.

A valuable resource to local districts of sufficient size in the effective and efficient interpretation and implementation of research would be established district positions responsible for such tasks and duties. Such positions should be staffed with personnel, full or part time, who are specialized in the review and reporting of research and would serve as resource persons. The resource position could be utilized to incorporate research findings into practice in all areas of the educational enterprise, and could contribute significantly to bridging the gap between research and practice in education, particularly personnel administration. Persons filling these positions would have to exhibit competency in initiating, collecting, analyzing, interpreting, conducting, and communicating research information, and must be able to report and transcribe findings in the language of the school system to appropriate individuals.

Conclusions on organizational responsibilities. State and local school systems should assume certain responsibilities in providing for bridging the gap between research and practice. A system to assure more effective coordination among school districts should be developed. This increased liaison characteristic among school districts would appreciably diminish gaps between research and practice in all areas of educational endeavor, including personnel services and administration. Placing a district representative, perhaps the occupant in the research specialist position, in charge of such a liaison program would greatly facilitate communication regarding practices and research among practitioners, and unnecessary duplication of effort could be eliminated effectively. Significant research projects, conducted in school systems, could be readily communicated through such a program. Organizations such as state departments of education, school board associations, school study councils, and special administrator organizations such as the large city superintendents' organization, should assume the initiative in developing this coordination aspect of educational research, theory, and practice communication.

Another organizational responsibility often neglected is that of inaugurating and encouraging policies of periodically assessing other fields of personnel service which can contribute significant research for use in school systems. For example, intensive effort, time, and considerable finances have been expended in behavioral science research, and findings from that area can be of special importance in the administration of school personnel. Organizations should provice for the assessment and accumulation of interdisciplinary research for adequate organizational improvement and in order to derive full measures of benefit from the research activities of other disciplines. School personnel administrators should recommend to appropriate organizations that some steps be taken to obtain knowledge from all areas which contribute to understanding of the personnel function. The research and development centers in school personnel administration should assume major responsibility in the articulation of knowledge among the appropriate disciplines.

School organizations should avail themselves of the services of universities, social institutions, and research organizations for consultant services. In order to improve practices in school personnel administration through greater acquaintance with research, school organizations should budget and provide for the use of the currently available planning, research, and development services from such consultant organizations. Such consultant services can contribute immeasurably to the inservice development of school personnel administration if use is made of them, and if an awareness is engendered regarding the beneficial effects of their potential contributions. The research centers, if created, could also be of value in the consultant program, as well as in programs of organizing and conducting conferences for correlating research and practice in school personnel administration. School systems, both state and local, should recognize the need for assistance through consultant programs, and should encourage the development and utilization of the consultant resources available.

In bridging the gap between research and practice in school personnel administration, school organizations would benefit from the development of an exchange program between school districts and schools of education. The exchange program would facilitate greater understandings of various approaches to problems of school personnel services and diverse practices in personnel administration and apply greater emphasis upon research. The dissemination of knowledge in personnel research also would be increased through such a program of administrator-professor exchange. Internship programs with practicing school personnel administrators also should be developed in order to assist in the process of bridging the gulf between research and practice in personnel service.

Other conclusions on bridging the gap between research and practice

Initiating closure between research and practice in school personnel administration is dependent in large measure upon the availability of financial resources. Sufficient funds will need to be provided to serve the purpose of bridging the gap between research and practice. To accomplish this purpose, financial assistance will need to be solicited from sources capable of furnishing remunerative aid. Suggested sources include philanthropic organizations and foundations, federal agencies such as the Department of Health, Education, and Welfare or the Department of Labor, state agencies such as the state department of education or the state legislature, universities or other institutions. Professional organizations such as the American Association of School Administrators, the American Educational Research Association, or the Research Division of the National Education Association and the American Federation of Teachers might provide financial assistance to programs of bridging the gap between research and practice in school personnel administration but more likely they would provide expertise and leadership in cooperative research programs. Local school systems should also contribute funds for local use in the program of research and the program of improving practices in personnel services within the district.

A central organization, with broad scope, comprehensive resources and professional orientation such as the U. S. Office of Education, should accept specific responsibilities in bridging the gap between research and practice in school personnel administration.

Reports of the research activity should be sponsored before state and national professional organization conventions to communicate the pertinent research findings. Educational journal editors should be gathered in a national conference of sufficient scope to discuss and explain possibilities in research implementation, and college and university seminars for lay leaders and professional leaders should be arranged.

Another significant activity for the U. S. Office of Education or a similar agency would be that of publishing a series of small pamphlets in great quantity focusing on research and practice problems in school personnel administration, written by persons with extensive competencies in communication and personnel practice. Study conferences for members of the administration profession from several fields should also be sponsored and held to continue the attack on problems and issues of personnel research and practice.

Practicing school administrators also have important responsibilities in bridging the gap between research and practice in school personnel administration. Entry into the profession of educational administration should initially be achieved following adequate training programs with appropriate emphasis upon research. The practicing school administrator should develop for himself and his situation a viable and realistic theory of his role or roles, and the roles of other personnel in the organization in terms of a working relationship with research in school personnel administration. Attempts to maintain current knowledge of significant research-practice characteristics need to be intensified in inservice programs, active participation in research activity, and diligent effort in giving and receiving research information. With appropriate self-application to the task of bridging gaps between research and practice in school personnel administration, the practicing educational administrator can significantly contribute to the improvement and betterment of personnel service.

Working in cooperative activity with other administrators, other school districts, universities, professional associations, governmental agencies, and the staff and subordinate personnel, the administrator can effectively promote a greater interdependence among research, theory, and practice in school personnel administration.

Conclusions related to identifying needed research

The second of the objectives of the research and development activity, "To identify needed research that will serve to focus continuing attention on the importance and means of narrowing the gap between research and practice," is the object of the following set of conclusions. Conclusions on needed research as related to the delimited project are organized into five parts: (1) research needs in staff participation in policy making and planning, (2) research needs in leadership development and selection, (3) research needs in role and relationships of teacher organizations, (4) research needs in morale of teachers, and (5) research needs in conceptual framework for school personnel administration.

Research needs in staff participation in policy making and planning. Conclusions on research needs in staff participation in policy making and planning include many facets of this area of personnel administration. Initially, a broad and comprehensive study needs to be conducted to compare advantages and disadvantages of staff participation in policy making and planning, and followed by an analysis to determine effective organizational patterns for the involvement of staff in the determination of policy.

The roles of members of the certificated staff, classified staff, administrators, and school board members need to be determined in terms of participation in planning and the creation of policy. Between roles in such participation lies the problem of adequate communication, and when representative committee systems are utilized in staff participation, effective methods of keeping the entire staff informed of developments need to be identified during the research process. There are several methods for obtaining or selecting staff to serve in such representative committees, but an analytical research study needs to be undertaken in order to identify the most efficacious means for obtaining membership in policy-making and planning committees. Comparisons need to be drawn among administrative appointment, peer-election, volunteering, etc.

Communication from subordinates to executive officers needs to be investigated to determine how staff members can best communicate their concerns to superiors.

An analysis of the characteristics and components of school ecology which affect staff participation in policy-making and planning needs to be undertaken to determine the qualitative aspects of the school environment. An investigation also needs to be conducted to determine the worth of the practice of teachers meeting with individuals with whom they might work (such as department heads and fellow teachers) prior to actual employment during the application and selection process.

Improvements in teacher-training programs might be effected by communication between school staffs and college and university personnel, but studies need to be conducted on a broad scale to determine the value of such communication.

Research needs in leadership development and selection. Conclusions on needed research in leadership development and selection in school personnel administration are listed below.

A primary need for research is in adult learning and methodology of adult education to determine the role of adult educational processes in the training of school administrators. Instruments and procedures need to be developed to aid and assist administrators in the selection of leaders and the development of leadership. Investigations need to be conducted into present administrative training programs and trainee development processes to ascertain the value of such programs.

Criteria for graduate university programs of training school personnel administrators need to be developed through appropriate research methods. In conjunction with this area in need of research, research studies need to be undertaken to determine which areas of graduate and undergraduate study are useful in the training of school personnel administrators. Investigations also need to be conducted to determine which interdisciplinary content is necessary for a properly trained school personnel administrator. Such studies should also ascertain need for and scope of criteria for development of special courses in interdisciplinary areas.

In addition, research studies need to be conducted to determine leadership qualities needed in modern schools, relationships between various personality traits and the ability to meet the demands of the leadership position, and desirable characteristics of leadership in educational administration. Such studies should be of longitudinal and biographical nature and of sufficient scope to warrant adequate implementation into practice.

There is need for an analysis of present techniques used for selecting administrators, including interviewing, case reports, decision-making ability, and other evaluative criteria. Further, appraisals of personality evaluation techniques should be undertaken to determine the creditability of such techniques. Criteria for inservice programs to improve on-the-job administrator performance are in need of development in appropriate research studies.

Modern technology, such as the use of data-processing and other technical equipment, and educational innovation, such as team teaching, ungraded schools, and flexible scheduling, may or may not have pertinence to training programs for administrators. Studies ascertaining the implications of such technology in educational administrator training need to be accomplished.

Studies also need to be conducted to determine proper administrative duties and activities in various school administrative positions. The use of time-study and job analysis techniques could be utilized in such studies. Another area of importance in suggested research is that of administrative strains. The internal (within the individual) and external (within the organizational) strains are appropriate areas of study in this research. Careful analysis of these strains would determine in part the necessary qualifications for particular leadership positions, as well as which levels of administration are confronted with the different demands. Additional studies would be harmful in the analysis of job expectations if the area of ideographic and nomothetic conflicts was adequately investigated.

Research needs in role and relationship of teacher organizations. School personnel administration is characterized by many needs in terms of research, particularly in the role and relationship of teacher organizations.

A prime consideration in school personnel administration is negotiation between teachers and administrators. Studies need to be initiated to determine what matters are currently subjected to negotiation and to determine what matters of employment may become negotiable. In this analysis, the similarities and/or differences of items being negotiated by union-affiliated organizations and National Education Association affiliates should be determined.

Studies should also determine how negotiable items are selected, how priorities are assigned, and what competence is utilized in the formulation of items. A determination of which matters may not be appropriate for negotiation should be made, and a study of legislative possibilities to specify negotiable areas should be conducted. In such studies, the relationship of negotiated items to existing or needed legislation should also be determined.

The proper role of teacher organizations in decision making in curriculum development and methodology is an area in need of research. An analysis should be made of the implications of collective action by teachers to gain participa-

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Additional factors to be researched are the extent to which teachers are recognized for their accomplishments, the communications structure of school to community, marital prospects in the community, changes in curricula, extent and kind of inservice programs, the image of the principal, the personality orientation of the superintendent, the extent of teacher participation in policy formation, socio-economic origins of teachers, district policies in teacher transfer, and the existence of double sessions.

Experiments should be systematically conducted to discover the effects on teacher morale of changing or modifying employment or environmental conditions. Causal relationships of altering policies of personnel administration should be adequately researched to discover their importance and scope.

Research needs in conceptual framework. A large number of areas have been designated as needing research and investigation as they relate to a conceptual framework for school administration with implications for personnel services. In the area of goals and values which affect school administration and resulting personnel practices, research studies are needed in the identification and definition of existing educational values, identification of sources of value and history of their acceptance, analysis of value conflicts and value priorities, relationships between effects of different personnel policies and achievement of value goals, and relationships among effects of different personnel policies, individual morale, and ethical concerns.

Tasks of the school system and the nature of the needs of individuals should be researched to determine the effectualization of tasks. Studies in this area should analyze (1) functional descriptions of tasks, (2) ways of grouping or clustering specific tasks for job descriptions and role definition, (3) requirements imposed by various roles upon personality, intelligence, skill, knowledge, and other individual characteristics, (4) conflicts and inconsistencies of roles and role-requirements, (5) role collating, (6) ways of regrouping or redefining traditional staff positions so as to minimize the need for individuals to assume conflicting roles in carrying out job assignments, (7) demands made upon individuals by various roles under given conditions and the relationships of these demands to individual capacity and willingness to meet them in our society, and (8) needs of personnel capable of fulfilling the requirements of the various school system roles, with particular emphasis on the relationship of the achievement of the tasks involved in the various roles to the meeting of these needs.

In the area of decision making, as it relates to a conceptual framework of school personnel administration, research studies need to be conducted to determine (1) at what levels decisions affecting personnel administration are actually made, (2) what modifications are necessary in decision-making procedures because of the growing militancy of teachers, (3) what the differential roles of authorities are who actively function in decision-making for personnel administration, and (4) the sources of evidence used by administrators in decision-making in personnel administration.

Investigations need to be initiated in school districts for clarification of operating motivation-incentive systems. Studies should analyze and determine what causes dissatisfaction among administrators, teachers, pupil personnel, service workers, secretaries, food service workers, custodians and others.

Studies should also analyze and determine the sources of motivation for such groups. The sources of motivation and dissatisfaction should be studied in relationship to characteristics of workers such as age, sex, marital status, subject matter field, stage or period in career, work characteristics, proximity to retirement, size of community, type of district, and degree of professionalism and activity.

A study should also be initiated to contrast and analyze differences or similarities between the reward systems utilized in school personnel administration, both internal-external and formal-informal.

Analysis of the seminar activity

The seminar activity, chosen as the basic implement of this research and development project, proved to be an exceptionally high-quality activity in accomplishing the objectives of the project. An analysis of individual characteristics of the seminar would involve an extensive review, but it is pertinent to call attention to significant strengths and weaknesses of the seminar.

Strengths and weaknesses of the seminar. Among the characteristics of the six-day seminar which are classified as strengths were: (1) the opportunity for school personnel practitioners to relate and work with research specialists and interdisciplinary consultants, (2) the opportunity for interaction among persons from various disciplines, (3) the presentation of highly challenging and informative consultant papers and services, (4) the unusually high quality of participants and wide range of talent and experience, (5) the sagacious choice of seminar topic, (6) the skillful organization and arrangements for the seminar, and (7) the provision for area panel leadership dispersion so all could serve a full measure in the work service.

Some weaknesses cited were: (1) the time permitted for the seminar should have been much longer than six days, (2) the participants requested more research consultation than could have been provided, and (3) area panels were occasionally deficient in research knowledge.

Improvement of the seminar. Suggestions for improving such a seminar activity include: (1) stenographers would be helpful during area panel work sessions, (2) the length of such seminars should be at least two weeks, with a minimum 3-day follow-up, (3) additional reports on significant research should be provided to orient participants, and (4) greater time for creative brainstorming should be allocated to the area panels.

Seminar conclusions about research. Certain conclusions were formulated during the seminar regarding the function of research in personnel administration. The seminar created a greater awareness of the kinds and amounts of research available in school personnel administration on the part of the seminar participants. The seminar also supported and illustrated the urgent need for continual study and research in personnel administration, and pointed out the necessity of informing practitioners about current and past personnel research.

An important result of the seminar was that problem recognition was enhanced, causing awareness of the need for research on means to get research findings adopted into practice. The seminar also proved that better means for making research information readily available to personnel administrators need to be developed, and better channels of communication are in need of development. It was also concluded that much of the research currently in existence is not being properly used; yet it was demonstrated that practitioners need help from research.

Conclusions on the function of research

The function of research in personnel administration was concluded to be many-faceted. Ultimately, it was concluded, research should serve in the improvement of the teaching-learning situation. Research also should be utilized to identify procedures, practices, policies, and environments of value in school personnel administration. Potential trouble areas can be identified and remedial action can be given proper direction. New vistas can be established and theory can be applied and tested through personnel research. Personnel administrative relationships can be effectively objectified and research can also initiate desirable changes in personnel services.

Research in school personnel administration also can provide technical information regarding the causal aspects of problems, and research can provide for the re-examination of the responsibilities of administration. Personnel research should be an integral part of the responsibilities of school personnel administration. The study, evaluation, establishment, and classification of practices in school personnel administration should be systematically conducted by practitioners in the field and by researchers and theorists in educational enterprise.

Seminar recommendations for action research. Many participants in the seminar expressed a strong interest in the continuation of bridging the gap between research and practice in school personnel administration. Engaging the school personnel administrator in action research would greatly facilitate the reduction of the gap in the research-practice relationship. The identified research needs in personnel action research would be excellent starting points for this activity. Some of the areas which could be adequately served and studied by action research include: (1) staffing requirements in administration of personnel, (2) behavioral dimensions of administrative theory and practice, (3) the historical analysis of personnel values and objectives to determine origins, (4) the extent, type, and characteristics of staff utilization and participation in decision-making, (5) aspects of legal relationships to personnel services, (6) the relation of professional associations and organizations to school personnel administration, (7) administrative ideographic characteristics, (8) employee collective bargaining, (9) selection, training, and evaluation of staff, (10) morale and job satisfaction of teachers and other staff, (11) inservice training program strengths and weaknesses.

The school personnel administrator could provide a tremendous service toward bridging the gap between research and practice in school personnel administration, by systematically recording and communicating significant problems. By regularly writing and disseminating such case studies, the school personnel practitioner would be effectively continuing the betterment of existing practices. Case studies have been shown to be valuable resources in making appropriate use of past experiences, and the development of these resources should be the active concern of personnel service administrators.

Seminar projections and outlook. Future planning beyond the seminar can take several directions: (1) additional seminars of this type should be conducted to continue the attack on the gap between research and practice in school personnel administration, (2) practitioners should be apprised of the need for research and ways to aid in conducting research, (3) research information should be provided by the suggested means found in this report, and (4) centers should be organized to continue study on problems of personnel services and to disseminate research information for implementation into practice.

Summary

Bridging the gap between research and practice is a major problem in the administration of school personnel. The solution of this problem lies in the development of means to disseminate research knowledge from research enterprises to practitioners in school personnel administration. Several changes need to be made in the process of incorporating research findings into policy and practice. Numerous techniques for accomplishing the implementation of research into practice are presented in this report.

The identification of needed research was made in five areas: (1) staff participation in policy making and planning, (2) leadership development and selection, (3) teacher organization role and relationships, (4) teacher morale and job satisfaction, and (5) conceptual framework in school personnel administration. The research needs in these high priority areas are varied and many. The scope of future programs for obtaining knowledge in the administration of public school personnel should recognize the gaps in research pointed out in this report and the suggestions for bridging them.

The research and development activity described in this report should prove to be an extremely valuable resource to agencies and personnel administration researchers, theorists and practitioners in terms of reducing haphazard or trial-and-error efforts to guide practice and further research.

APPENDIX I

The following are the area panel reports. The reports are presented as they were submitted by the panels and have been subjected to only minor editing. The form and content have been preserved to retain the ideas, originality and creativity shown by the seminar participants.

The material constitutes much of the "raw data" from which the Conclusions and Implications were drawn. In some cases the material is in the form of an outline and represents ideas rather than complete thoughts. In some cases the panel findings fail to communicate and the Investigators were unable to clarify certain items because the panel membership was no longer accessible.

On the whole the panel reports are most stimulating and in many cases very creative. To have rewritten them would have caused loss in these very important qualities.

AREA PANEL FINAL REPORT

STAFF PARTICIPATION OF POLICY MAKING AND PLANNING

The panel spent less time in determining the availability of research than in listing gaps and needed research. The panel, composed of five practicing administrators, had a consultant in the field of business administration.

The following information was taken into consideration when dividing benefits of staff participation into personal and professional areas:

I. Defining the Areas

A. Definition and Background

Areas of Policy Making and Planning
1. Personnel
2. Curriculum
3. Organization
4. Pupil Personnel
5. Business
6. School Community

B. Identifying Groups Having Interest in Policy Making and Planning

1. Staff
2. Administration
3. Board of Education
4. Students
5. Public, Parents, Chamber of Commerce, etc.

This panel limited its discussion to staff and administration involvement.

C. Rationale for Staff Participation

1. Staff members increasingly feel they have a right to be heard.
2. The contributions of the staff are vital for the administration in decision making.
3. Participation provides for open communication in the organization.
4. Staff involvement in policy making and planning contributes to a sense of belonging and a commitment to program implementation.

D. Using Committees As A Device for Staff Participation

Committees should:
1. have a clear understanding of areas of responsibility.
2. stay within the policies, framework, and limitations placed on the district by the Board of Education.
3. be truly representative.
4. have freedom to operate.

5. have a "balanced" membership. That is, new and older teachers; elementary and secondary representation, etc.
6. have interest and knowledge of problem.
7. have no fear of retaliation.
8. recognize and have knowledge of existing and relevant research on the problem.

II. Personal and Professional Areas

A. Job Specifications

Staff should be involved in writing job specifications. These should include the following items:

1. Grade or subject to be taught
2. Basic preparation
3. Prior professional experience
4. Special training (over regular credentials)
5. Past job sequence--if experienced person is needed
6. Age range
7. Sex
8. Marital status
9. Personal characteristics desired
10. Composition of class or classes to which assigned
11. Others

B. Recruitment

1. The optimum task force for recruitment under varying conditions (team-individual, recent graduate).
2. Types of materials which are most effective in the selection process (salary interpretation, visual aids, handbooks).
3. The procedure sequence and sensitivities to be considered with the individual candidate to insure satisfaction with both parties.
4. The preparation to be made prior to campus visitation (letters, materials, etc.)
5. Policies which will make provision for acceptance of outstanding candidates to conserve the time of the recruiter.
6. Effective follow-up procedures prior to final selection and employment.
7. Services anticipated and expected by the potential employee (housing).
8. Provisions for orientation to the school system in order to complete the full cycle of recruitment and employment.
9. The desirability of observing the candidate's teaching prior to recruitment.
10. Comparative effectiveness of various means of communications (telephone, mail, personal contact) in specific segments of the total recruitment process.
11. Stated and published policies regarding salaries, freedom from discrimination, etc., which relate to the well-being of the candidate.
12. Effectiveness of community "Teacher Days" and "Teacher Weeks" on recruitment productivity of new teachers.

3

C. Interviewing

1. Is it important for applicant to talk with person with whom he will work: department head, fellow teacher, etc.?
2. Should applicant visit campus?
3. Should we have more group interviews and have the individual members of the interviewing committee "primed" with specific questions to test "stress" areas?
4. Which is the more effective technique--directive or non-directive interviewing?
5. Should every applicant be required to have a personal interview?
6. What value can be placed on observing the applicant in a teaching situation?
7. Could a film of an actual teaching situation be produced so as to have the applicant react?

D. Selection

1. Teacher committees should be used to interview and help select applicants.
2. It was felt group selection is more reliable than individual selection.
3. Instruments of selection should be developed, and research into effectiveness of group interviewing should be conducted.
4. In Detroit, when an applicant "fails" the interview before a committee, he has the right of appeal to another committee for an interview. If he passes this interview he can be employed. It is found that of those employed after the second interview, 70 per cent are successful. Should be research into validity of second interviews.

III. Current and/or expanded research by the staff is needed to provide ways and means of determining:

A. Compensation for staff that is based on training and experience, is related to the cost of living index, and is competitive with personnel in other professional activities.

B. Fringe benefits for staff in such areas as insurance, leave, severance pay, and retirement that are competitive with benefits given to personnel in other professional activities.

C. Leave provisions for staff in such areas as maternity, sabbatical, military, personnel, and sick leave, that make education competitive with other professions and that retain high morale among personnel and insure an adequate staff to serve the needs of the students and patrons at all times.

D. Retirement provisions for staff in such areas as social security, and state teaching retirement that is competitive with other professions. Reciprocity among states should be recognized, and there should be comparable age requirements, typical mental health, and other personnel standards.

E. Severance pay provisions for staff are related to sick leave so that districts may provide a flat payment for unused days of sick leave at time of retirement or the use of the money in purchasing, on a group basis, such benefits as health insurance policies.

IV. What is the available research and what new research is needed on staff participation in:

A. Employee counseling

1. Devising an organization structure for a counseling program for staff personnel in a school system. At the district and the school level, keeping professional independence of counselors and confidentiality of data, yet maintaining necessary information for administrative purposes.
2. Developing a program of counseling functions
   a. Surveying the needs as they pertain to staff in a particular system and environment
   b. Translating needs into counseling functions--such as marital, financial, emotional, physical, etc.
3. Collaborating with community agencies in referring special cases to appropriate agencies, such as welfare, mental health clinics, ministers, etc.
4. Communicating the availability, purposes, and facilities of a counseling service to all staff, emphasizing that the service is voluntary.
5. Educating all staff in identifying changes in attitudes and behavior patterns to assure early referral to counselors.
6. Providing for extra counseling at crucial periods, such as employment, transfer, termination, retirement, or personal crisis situations.

B. Employer associations

(Since this is one of the assignments of this panel, it is treated in less depth here, but included as an important area of staff participation.)

1. Developing a school system philosophy on the relationship of the professional association, and its members, to the educational objectives of the system.
2. Developing a clear cut policy statement on staff rights and privileges via membership in professional organizations.
3. Developing communication and liaison between the employee organizations and the school system administration.
4. Transforming the relationship from one of conflict between organization and school system to one of understanding and collaboration.
5. Providing for procedures by which grievances and differences may be resolved systematically and with regard for justice and equity.

C. Job Security

1. Developing policy and job contract provisions which spell out the

conditions for continued appointment or termination.
    a. Procedures and application of performance evaluation reports.
    b. Procedures for giving notice of reappointment or termination--how soon, how much explanation, etc.
    c. Procedures for staff member to get a hearing for appealing a decision on a termination or downgrading decision.
2. Developing policy on the use and applicability of length of service as a criterion for decisions regarding continued employment (tenure).
3. Relating job security provisions to pay scales, retirement plans, and other special benefits that are connected with length of service.

V. What is the available research and what new research is needed on staff participation in:

A. Pre-service training

Needs include:
1. Better communication from school staffs to colleges and universities concerning effectiveness in teacher training programs.
2. Better communication from school staffs to colleges and universities concerning needed changes in teacher training programs.
3. Better utilization of school staffs in the supervision and conduct of teacher training programs.
4. Better utilization of school staffs in discovering, adapting and using devices which will improve teacher-training programs.

B. Inservice training

Needs include:
1. Instruments to measure performance efficiency of administrators.
2. An evaluation of experiences which will enable administrators to develop flexibility in the use of authoritarian and/or democratic administrative procedures.
3. An evaluation of experiences to which classified supervisors should be exposed to achieve better performance.
4. Improved devices for measuring teacher effectiveness and/or areas for teacher growth.

VI. What is the available research and what new research is needed on staff participation in:

A. Promotion

1. What evidence is available or can be obtained in the area of promotional practices which would:
    a. Help in measuring the relative effectiveness of present screening devices such as tests, oral interview boards, staff preference sheets, etc.
    b. Develop other screening devices which could be used effectively.
    c. Secure better acceptance on the part of those not chosen.
    d. Develop effective on-going inservice training programs for promotional positions.

B. Evaluation

1. Research is needed in the area of evaluation which would:
   a. Help to develop a more realistic approach to self-evaluation.
   b. Determine a more realistic measurement of teacher performance in terms of individual capabilities and individual differences.
   c. Develop an effective procedure for evaluating administrators.

VII. What is the available research and what new research is needed on staff participation in:

A. Curriculum

New or refined evidence required on:

1. Improved methods of curriculum development for increased productivity and utilization.
   a. Who should develop and write curriculum...Staff? Outside experts? Combination of these?
   b. When should curriculum revision be accomplished?...School year --released time? Summer--extra pay?
   c. How can local districts be aware of and utilize curriculum materials developed: nationally? state wide? county or other local districts?
   d. What are the responsibilities of individual staff members in curriculum development?
2. Improved methods of curriculum evaluation.
   a. How can teachers become more discerning in the selection of the "vital" content to be taught within a subject field?
3. The effectiveness of technological advancements in television and teaching machines on the educational achievement of students.
4. The implications of teaching teams and other staff utilization patterns on curriculum development.

B. Work Load

New or refined evidence required on:

1. Relationship of teacher-pupil ratio to educational achievement (at all levels and subject areas of the school organization).
2. Effect of teachers being provided planning period, duty-free lunch periods, teacher aides, readers, four periods for English teaching, school time for faculty and/or district meetings in relation to pupil achievement.
3. The effectiveness with which non-certificated personnel are performing typical teacher assigned extra-curricular duties.
4. Implications of teaming of teachers, ungrading, modular scheduling, to teacher-pupil load and educational achievement.
5. The effect of the length of the school day on teacher effectiveness and educational achievement.
6. The effect of the length of the school year on teacher effectiveness and educational achievement.
7. The effect of television and teaching machines on teacher-pupil load in relation to educational achievement.

8. The relationship of special classes and programs (mentally retarded, emotionally disturbed, educationally handicapped, physically handicapped) and the desirable class size for high educational achievement.
9. Desirable class size for high educational achievement and the availability of specialists, i.e., school psychologists, curriculum consultants, and special area teachers.

AREA PANEL FINAL REPORT

LEADERSHIP DEVELOPMENT AND SELECTION

This panel has been focusing on the question of leadership development and selection. In considering this topic we became aware very early of the fact that we were not able to bring to bear any substantial understanding of the research in this area. All members of the panel are school personnel administrators, and we concluded early in our deliberations that our best contributions to this conference would be to identify questions which we feel should be answered by competent research.

We have noted that most research done in the field of school personnel administration is of the survey or descriptive type. Realizing that experimental research in administration is difficult because of the problems of establishing the necessary controls, the panel feels the necessity for experimental research under controlled conditions so that cause-effect relationships can be established.

Within this framework our attention has been directed to two questions: (1) What needs to be done?--What questions do we feel that research should be able to answer for the school personnel administrator? (2) What suggestions can we make for bridging the gap between research and practice?

First, let us consider the questions we feel should be answered:

(1) Despite the efforts of many universities to pull administrative trainees in for full-time study it is still safe to say that most administrators receive the bulk of their administrative training as part-time, evening, and week-end students. A rapidly growing field of continuing education (or adult education, if you prefer) is concerned with how learning is best accomplished under circumstances where the student has a full-time wage earning responsibility and whose major concern is something other than getting an education. A whole body of research on "How Adults Learn" growing out of studies by such men as Houle at the University of Chicago, Kuhlen at Syracuse University and Sheats at U.C.L.A., should be brought to bear in planning learning experiences for these adult education students. Research needs to be done on adult learning and adult education methodology to determine how it can best contribute to the training of the school administrator.

(2) Administration and supervision are filled with stresses and strains that are not present in many other types of employment. These strains are of two types: internal (within the individual) and external (within the organi-

zation). Both need to be studied. Different levels of administration require the meeting of different kinds of stress and a careful study of what these strains are would begin to lead us to a better analysis of the qualifications for a particular job.

The school administrator is not being trained to run a shop where a bunch of nuts and bolts are put together to form some finished product. His influence on the lives of young people and his critical position affecting the future of this country make training and selection very critical.

Internal stress and its measurement gets into the area of personality assessment, and the panel urges careful study of the relationship between various personality configurations and the ability to meet the strains of the position. We feel that a careful study in the area of personality might suggest ways in which personality measures would be useful in the selection process.

(3) What are the qualities necessary for leadership in the modern-day school? Further research in this area is needed. What have been the characteristics of successful administrators in the past? Is there anything we can learn from analyzing longitudinal and biographical studies of people who have been successful (whatever that means)?

Concepts of leadership have changed through the years. At first, leadership was considered as a single personality trait. It was then realized that leadership involves a variety of personality traits functioning in interrelated ways. Then, leadership researchers abandoned this line and attacked the problem through a situational approach. It was apparently discovered that different leaders arise in different situations and that leadership is manifested in different and sometimes opposite patterns; that is, directive in some situations and permissive in others. All this is useful background for school personnel administrators, but instruments and procedures are needed to help these administrators develop and select leaders.

What are the schools of education doing now to accumulate a stockpile of information on administrators presently in training? Would it not be wise to get as much information as possible about present trainees and file it away for future reference (even ten years from now) to assess the quality of their training, and the characteristics they had when in training, which might give a clue to improved selection techniques?

(4) How much do we know about the present techniques for selecting administrators? Research needs to be done on interviewing, decision-making ability, case reports, and other evaluative criteria. Is personality assessment practical and reasonable? What about projective techniques? What about the rights of the individual with regard to the invasion of privacy and privileged communication? The use of projective techniques and other personality measures by amateurs cannot be condoned.

(5) What sorts of inservice programs could be developed for administrators to improve their effectiveness on the job? If personal counseling is desirable for teachers, is it not equally desirable for administrative staff?

The development of school personnel services is relatively new and there is much need for research to establish graduate university programs for training of the school personnel administrator. What should be the nature of this training? Research is needed through time-study and job analysis to determine administrative duties and activities in the various school administrative positions as they relate, especially, to the disruptive function suggested by Carlson.

(6) What are the implications of modern technology and new methodology in the training of administrators?

a. Astounding developments in the area of hardware have changed the life of the administrator in many ways. He now needs to be able to use a computer and other technical equipment. Research is needed to determine the extent of knowledge of computer technology necessary for an administrator to do his job.

b. Of even greater significance is the change in the role of the administrator, especially the building principal, in the face of such innovations as the ungraded school, team teaching, and modular or flexible scheduling. Research needs to be done on the role of the administrator under such new organizational plans.

(7) Dr. Conant's recent survey and recommendations regarding the preparation of American teachers may well be pertinent to the training of school administrators. Recognizing the probable desirability for studies in fields other than education, it is recommended that research be undertaken to determine which areas of graduate and undergraduate study actually are useful. Of particular concern is the problem of interdisciplinary work at the advanced graduate level when educational administration students do not have the necessary prerequisite preparation.

Careful research needs to be done on the interdisciplinary content necessary for a properly trained administrator and special courses need to be designed around these findings.

We have suggested a number of areas which we feel require careful research. Research which is not eventually reflected in practice is of little value to the personnel administrator, therefore we must address ourselves not only to needed research, but the translation of research findings into action. The balance of this report will concentrate on means which the panel has identified for bridging the gap between research and practice.

(1) The committee is concerned about the wealth of research which has been and is being done in the area of school personnel administration which is urgently needed by practicing school personnel administrators. Certain techniques to assist in bridging the gap between research and practice are suggested by the committee. Among these are:

a. Methods for classification of research in school personnel administration, comparable, perhaps, to the Dewey decimal system or the Library of Congress system and/or the utilization of data processing hardware available to facilitate this end.

b. The services of some central agency such as the U. S. Office of Education, some professional organization such as the N. E. A., or a university or group of universities working in collaboration is needed to gather, classify, and disseminate research pertaining to school personnel administration.

c. A system is needed to assure effective liaison among school districts when worthwhile pilot projects are accomplished to avoid the necessity for redoing what has already been effectively studied.

d. The need of a periodical to disseminate titles and abstracts of on-going and completed research in the general field of personnel administration is suggested. The committee recognizes the contributions made by people in the field of personnel in both the private and public sectors of personnel administration.

e. Recognizing the need for financial assistance to accomplish these suggestions, the support of foundations and governmental agencies should be solicited.

Examples of present or projected programs which seem to be headed in this direction are the development of a taxonomy by Griffiths at New York University and the planned abstracting service which is soon to become available through the University Council for Educational Administration. The panel enthusiastically endorses these developments and encourages wide dissemination of this information.

(2) School personnel administrators are busy people with a variety of responsibilities and they do not now have the time to review the host of contributions or to select those which are most valid for their particular school enterprises. It would be desirable to establish a specialized position, full-time or part-time, in the system in which reports on research would be reviewed, digested into the language of the school system and passed along to the personnel administrator or other appropriate person.

(3) In many communities, relationships between institutions of higher education and the public schools have become strained to the point of disfunction. Senseless jealousies, mistrust and rivalry have destroyed what should be a close working relationship.

Some universities have offered free consultant services as part of student teaching, internships, and other programs. Few districts really take advantage of these opportunities. If the university could provide the service, and the school district could accept the offer, much of the gap between research and practice could be bridged in this manner.

An additional specific recommendation of this panel is that schools of education and public school districts cooperate in exchange programs at both the classroom and administrative levels. For example, we feel that much of value could grow out of an exchange in which a professor of administration spent a year as principal of a school while the principal spent a year on the faculty of the school of education. In like manner, exchanges among school districts should be encouraged.

AREA PANEL FINAL REPORT

ROLE AND RELATIONSHIP OF TEACHER ORGANIZATIONS

A. Introduction:

It is apparent that the relationship among boards of education, administrators and teachers is undergoing change. This change is manifested in newspaper reports of negotiated contracts, strikes and sanctions. An analysis of the possible trends resulting from this change, as influenced by available and desirable research, was the subject to which this panel directed its attention.

1. Causes of the change would include:
   a. The real or apparent accomplishments of other employee groups outside education.
   b. The employed professionals' desire to participate increasingly in the decisions which affect his conditions of service.
   c. The increase in public employment, coupled with the increase in bargaining in the public sector.
   d. The problems emerging from the large city systems.
   e. Legislative changes regarding rights of teachers to organize and negotiate.

2. Effects of these changed organizational relationships are exemplified by the following practices, among others:
   a. The establishment of recognition and grievance procedures.
   b. The employment of specialized personnel to represent employee groups.
   c. The use of the strike and sanction.
   d. The development of formal agreements or statements defining employer-employee relationships.

3. In the recent period of vigorous teacher organization activity, the following significant trends, among others, have become discernible:
   a. Employee groups are becoming more militant in demanding recognition of their "right" to establish policies which affect their employment.
   b. Requests by employee groups show concern for classroom procedures and matters of educational policy as well as salaries and working conditions.

B. What should administrators and practitioners know about collective employee activity, both in education and outside of education?

1. Background facts in education
   a. Types and extent of present practices in education.
   b. Present positions, (practical, strategic, and theoretical) of major organizations.

c. Known results of present practices (content of unilateral and bilateral agreements -- what is being bargained for, etc.) (Bibliography will be developed here for guidance of administrators and practitioners generally.)

2. Facts and theory concerning developments outside of education.

   a. Must know of forces in larger societal context which are shaping future of the problem within education.
      1) Example: The educator must understand key elements of private sector industrial bargaining so that he may judge their appropriateness to education and engage in dialogue as to whether they should be extended to education. He must also be aware of employee relations developments in public employment outside education.
   b. The educator should be aware of the extensive literature which deals both practically and theoretically with the nature and dynamics of group conflict. Must be aware of the implications of collective bargaining as a process of accommodation of conflict in a context of group power so that he can:
      1) judge appropriateness of the process of education.
      2) successfully conduct a bargaining relationship if he is ever faced with one. (Inter-personal, traditional leadership skills are simply not sufficient equipment for this task, even where democratic or consultative administration is practiced.)
   c. After becoming aware of what research has told us about the inherent nature of conflict between different subordinate and superordinate levels in other types of organizations (and about the possible positive as well as negative functions of conflict), the practitioner in the school system should develop for himself a viable and realistic theory of his role and the roles of others in the organization. This will help him determine whether there is, or should be, conflict over any matters between teachers and administrators in the properly ordered school system, and if so, to what extent any of the aspects of negotiation or bargaining are appropriate to handling it.

C. What investigations and research are needed? (Some of the following are now under way,* and some have not been undertaken.)

   *1. History and documented positions of major teacher organizations with respect to collective action among public school teachers.
   *2. Study of legal considerations in all states, with emphasis on analysis of public policy considerations.
   *3. What has happened when traditional private sector bargaining concepts and procedures have been applied to education by the state labor bodies?
   *4. What is the incidence of different structural types of formal and informal negotiation?
   *5. What does analysis of agreements negotiated to date disclose?
   *6. Understanding nature and dynamics of teacher organization, school administration negotiating activities, and impact of negotiating relationships on administration of school systems.

a. How did the teacher organization-school administration relationship develop? What events were associated with the initiation of the formal consultative or negotiating activities?
b. What are the dynamics of the process and the procedural forms actually observed as the parties meet to exchange information and requests or to bargain? What are the roles played in the negotiating process by the school superintendent, or other persons on the administrative staff, and school board members?
c. What is the formal, legal and/or informal force and effect or "standing" of the relationship and the agreement? What forms of power or influence (legal, publicity, sanction or strike, etc.) are invoked or threatened by the parties to insure continuation of consultative or negotiating activities and compliance with written agreement? Does the extent of true disagreement on specific issues and the methods and techniques employed to resolve disputes indicate the existence or absence of an alleged inevitable conflict of interest between teachers on the one hand and administrators and school boards on the other?
d. Conversely, to what extent are true voluntarism, identity of interests, and cooperation responsible for the relationship and agreement between the school administration and the teacher organization? What is the incidence of teacher organization - administrator - school board cooperation for realization of common goals?
e. How does the local teacher organization use power to affect school administration, the board, the tax rate, and the community at large?
f. What is the effect of the collective relationship on teacher welfare, policies, practices, and administrative discretion generally within the school system?
g. What are the perceptions of and attitudes toward the collective relationship displayed by board members, administrators, and representatives of teacher groups?
h. What influence and/or assistance from state and national organizations affects the conduct of the parties at the local level in their relationship and activities?

* Details of this research currently being conducted can be obtained from W. Wildman, University of Chicago, 1224 E. 60th St., Chicago.

7. What matters are being discussed and negotiated and what matters may become negotiable?

   a. Current emphasis appears to be on teacher salary and welfare matters, including:
      1) Salaries, including such factors as index schedules, increment patterns, differential contracts, etc.
      2) School calendar, including length of day, year and holiday pattern.
      3) Leaves of absence, including personal sick leave, and professional, or sabbatical leaves.
      4) Other items, including insurance benefits, professional load, etc.

b. A study and analysis of the similarities and/or differences relating to items currently being negotiated by Union Affiliated organizations, and NEA locals should be undertaken.
c. Who selects (assigns priority), and what competence is utilized in the formulation of those items (demands) being negotiated?
d. What is the relationship of this problem to legislation?
(1) Existing legislation, (2) Desirable legislation needed.
e. What matters are not appropriate for negotiation? Should there be legislation to specify those areas open for negotiation?
f. What is the proper role of teacher organizations with regard to decisions on curriculum and methodology?
g. What are the implications of teacher collective action for teacher participation in the school program and unity and cohesiveness of the school staff?

8. Public image of the teacher as he embraces bargaining relationships with the accompanying implication of strikes and/or sanctions.

a. Does it matter? (1) to the individual teacher, (2) to the profession, (3) to the teacher-pupil or teacher-parent relationship?
b. Must the teacher choose between "professional status" and first-class citizenship, or is it possible to have both?
c. Assuming that the public ultimately controls the purse strings, will more be gained by traditional lobbying and public relations activities rather than collective action?
d. Realizing that some teachers will never embrace collective action, other problems to be encountered are (1) retention of capable teachers already in the profession and (2) recruitment of good potential teachers into the profession.
e. What is the profession's responsibility when it comes to the quality of its service? Might there be certain circumstances under which the most "professional" behavior would be to withhold services?

9. Are teachers ready and/or willing to assume real power and control over educational decision-making?

a. To what extent will teachers be responsible for the results of their collective decision-making? What will be the impact upon the entire educational process?
   1) Do teachers understand collective action in terms of its implications for personal action and interaction?
   2) Do teachers know any more about the mechanics of collective action than administrators do?
   3) Are the most "competent" teachers rising to positions of leadership in the teacher associations?
   4) How do teachers' understanding and abilities actually compare to those of administrators?
   5) Do organizations participating in collective action do a better job of training members for decision-making than organizations not bargaining collectively? Are these members better informed?
   6) What percent of the membership actually "runs" the organization?

   b. If teachers become more militant, will this support or discourage development of desirable "self-actualizing professionalism?"

10. Is there any relation between classroom objectivity and affiliation with various organizations? (The NEA has vastly influenced opinion and conduct. Is it true that we can expect the unions to do the same? If so, what effect will union doctrine have upon education?)

11. What is the role of the teacher organization in politics?

    a. Should the organization take an active part in local, county, state and national elections? (from school board elections to presidential elections?) If so, should this be in the form of a public or private endorsement only, or should a candidate be selected, and given financial support from the organization? Does the question of "ethics" apply here?
    b. Should the political activity of teacher organizations be restricted to educational objectives, or should it be broadened to include the goals of the larger society?

12. a. Is there inevitable conflict between teachers and school administrators which makes it necessary to exclude administrators from teacher organizations which conduct collective bargaining?
    b. Will collective action by teachers result, eventually, in negotiations by groups of administrators?

13. What forms of teacher organization power, short of withdrawal of services, are developing? Pros and cons of "sanction" vs. "strike." Both should be studied in relation to (1) teacher effectiveness, (2) teacher morale, and (3) teacher recruitment. What are the obligations of other professional groups in honoring sanctions, strikes, or other teacher group power activities?

14. Relationship of merit-pay theory and practice to teacher organization philosophy and negotiating behavior.

    a. Does the merit-pay program reduce the unity of an organization?
    b. Will the results of collective bargaining make the profession attractive enough to attract an adequate supply of top-notch people, thereby making "merit-pay" programs ineffective?
    c. Are there ways of making differential payments to teachers that would not be divisive, and so be acceptable to the organization?
    d. Can teacher competencies be identified and measured objectively?
    e. Does the public know that merit-pay programs cost more -- not less -- than present single salary schedules?

15. What are the motivations of teachers to organize and negotiate collectively? What are teacher satisfactions and dissatisfactions resulting from the process? Does teacher collective action accomplish the goal of bettering education through a better staff?

16. What are the philosophies and programs of professional groups which deny desirability of any form of collective action?

17. What are the implications of teacher collective bargaining for the development and implementation of education (curricular) change?

18. What are the implications of tendency to push disputes toward state level and what may be consequent changes in structure of decision-making for entire educational enterprises such as the example in Utah?

D. To help close the gap between what is known and what is practiced in the area of our concern, this panel has drafted the following proposal:

The first principle of communications is that one must identify the target. The next step is to devise ways of hitting it. Then the message has to be uncoded in such a way that it will be perceived, mediated and internalized to change individual and group behavior in the direction intended.

Our target is the whole teaching profession -- administrators, personnel directors, and the research community in particular.

It is unrealistic to expect these groups to be moved by thirty individuals who attended this seminar in face-to-face contacts, or by a seminar report published in the quantity of 200 copies. There should be, then, follow-up by the U. S. Office of Education.

At least these five major features should be included:

1. Reports by the University of Chicago Study Group before state and National NEA and AFT conventions when the study is concluded.

2. A gathering of as many educational journal editors as possible, at which these results would be explained and discussed.

3. Publication of a series of small pamphlets in great quantity, each focusing on one phase of collective activity, written by a middle man between research and practice with professional training in communications.

4. A series of college and university seminars for lay leaders. Each department of school administration should set up at least one of these.

5. Phi Delta Kappa, or some other national organization not directly involved in collective action of the type studied, should hold a national two-week study conference for top organizational leaders.

AREA PANEL FINAL REPORT

TEACHER MORALE CONSIDERATIONS

The panel reached consensus that the following steps would be an achievable, realistic sequence of procedures for the effective researching of educational morale considerations. The immediate task of the panel was to specify, under each of the below steps, possible items and procedures for inclusion within the projected research.

I. Operational definitions of morale

"Morale is a feeling of participants in an organization stemming from a combination of (a) perceived productivity or progress toward the achievement of the tasks of the organization, and (b) perceived job satisfaction or the satisfaction of individual needs through the interaction of the participant in his role within the work group and the total organization."[1]

These definitions would be further operationalized by standard measurement techniques.

There are standard techniques available for development of instruments in terms of which "morale" may be operationally defined. One general procedure is to begin with all suggested problem concerns of practitioners and behavioral scientists. Instruments may be administered, factor-analyzed to determine central response clusters, and correlated with other measures having "validity" relevance. Eventually a refined instrument would be available, to be administered under defined conditions, to assess the important types of morale of the individual or of the organization.

Any morale study should be considered in relationship to the realization of established goals of the educational enterprise.

II. Measure morale at all levels of the educational system--to construct and validate instruments for such populations as student, teacher, administrator, board of education, parent, citizen, etc.

There is a need for more refined instruments for quick appraisal. Examples of easily accessible indices of morale might be:

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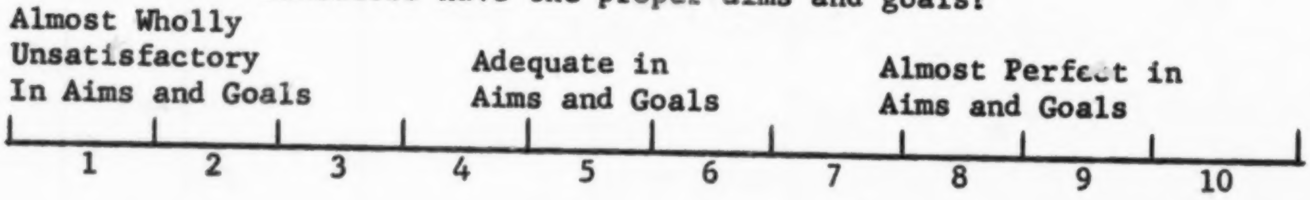
[1] Lonsdale, Richard C., "Maintaining the Organization in Dynamic Equilibrium," Behavioral Science and Educational Administration, Chicago, National Society for the Study of Education, 1964, p. 165.

1. Absenteeism (sick leave)
2. Transfer requests
3. Turnover
4. Kind, number, and frequency of complaints
5. Staff opinion
6. Dropouts

There is a need for more sophisticated instruments for diagnosis.

This step is clearly dependent on, and inter-related with, Step I. The eventual instrument might have items of the form:

How completely do you feel your school administrators have the proper aims and goals?


Almost Wholly Unsatisfactory In Aims and Goals
Adequate in Aims and Goals
Almost Perfect in Aims and Goals
1
2
3
4
5
6
7
8
9
10

Such a scale (frequently called a semantic differential) often takes normal distributions, and lends itself to studying relationships.

III. Study morale relationships among the different levels (such as teachers, pupils, administrators, board members, parents, citizens, etc.); e.g., to what degree is the morale of the teacher related to the morale of the principal?

The data from Steps III and IV take the following sequential forms:

1. All of those variables which are suggested as relevant to morale, and which are accessible to measurement, may be incorporated in individual or organizational records. (Note that measurement is not restricted to interval scales; rankings and frequencies are also included in the data record.)

2. The "data matrix" then takes the form:

Individuals (or Organizations)			Relevant Variables of Interest				
	1	2	3	4	.	.	N
A							
B							
C							
.							
.							
M							

3. The next operation is to produce a matrix of inter-correlations of the summary data. For need III such a matrix might take the form:

	Students	Teachers	Principals	Parents	Etc.	N
Students	1.00					
Teachers		1.00				
Principals			1.00			
Parents				1.00		
Etc.					1.00	
.						
.						
.						
N						

Note that this results from a data matrix of the form:

JOB TITLES

School	Students	Teachers	Principals	Parents	...	N
A						
B						
C						

4. For need IV, the correlation matrix may take the form:*

	Condition Variables					Morale Variables				
	C_1	C_2	C_3	.	C_n	M_1	M_2	M_3	.	M_n
C_1	1.00									
C_2		1.00								
C_3			1.00							
1										
C_n										
M_1						1.00				
M_2							1.00			
M_3								1.00		
.										
M_n										

---

*Cf. Tatsuoka and Tiedeman, Chapter 4 in N. L. Gage, Handbook of Research on Teaching, Chicago: Rand McNally, 1963.

IV. Study relationships between these morale levels and other conditions (e.g., morale and pay scale, merit pay, performance).

See reference Part III, Section 4.

Some of the variables that might be researched are listed below. These might be classified as:

1. personal
2. school-related
3. community-related

An example of some of the items that might be researched are:

Crime level in a community
Productivity (Are goals being accomplished?)
Teacher load
Extra-curricular assignments
Academic freedom
Fiscal policies (district, state, etc.)
Communication problems
Degree of participation
Personal variables of students
Personal variables of teachers (tenure, salary, total family income, etc.)
Professional organizations
Image of teacher as perceived by the community and himself
Imposition of non-teaching functions
Academic training
Level of community support of school
Effectiveness of supervision
Attitude of Board of Education
Physical facilities
Instructional supplies
Specifications of personnel procedures
Recognition
Teacher load
Orientation of press
Communications of school district to community
Number of eligible men in school district
Curriculum changes
Inservice training
Image of the principal
Personality orientation of superintendent
Participation in policy formation
Social origins of teachers
Transfer policies
Double sessions

The above list is only suggestive and far from exhaustive. It is further understood that some of the above need defining and others readily lend themselves to classification.

V. Experiment by systematically changing the conditions to determine causal relations to morale (e.g., alter policies of communication to study effects.)

From the bivariate and multivariate analysis of relationships to morale, some inferences for practice will emerge. Where these suggest some alterations in selection procedures and/or in conditions or policies of the schools, and where these alterations are conceivable in philosophical, ethical, economic, or other practical terms -- in such cases these conditions may be randomly assigned to appropriate individuals or organizations and studied in acceptable experimental design format.

Resulting measures of morale or other important criteria of effectiveness may then be studied for causal inferences. Examples of experimentation that might take place may be found in the areas of teacher-pupil ratio and leadership experimentation within the schools.

VI. Implement the positive conditions and eliminate the negative conditions across the broader educational and social spectrum.

Where Step V has been realistically performed, and results are suggestive for general practice, there should be direct applications of preferred practices.

This research program has been developed as a result of the need expressed by panel members. It is valuable only to the extent to which it becomes operative. Implementation of this program requires both time and money, neither of which is sufficiently available in local school budgets. It is the hope of this panel that adequate funds may be provided for the establishment of centers with appropriate facilities, staff and teams for:

(1. the orientation of administrators and boards of education, and

(2. the conduct of morale studies in selected school districts.

AREA PANEL FINAL REPORT

CONCEPTUAL FRAMEWORK FOR SCHOOL PERSONNEL SERVICES

This panel has come to the tentative conclusion that its task is to determine the conceptual framework within which the problems of school personnel administration can be studied. Its considerations must necessarily be at a somewhat abstract level. When questions of specific research, research needs, and proposals for action are considered, they will in most cases be found to lie in the sphere of interest of the other panels. However, certain general conclusions can be reached about practices needing improvement.

I. Practices Needing Improvement

Kinds of practices needing improvement which can only come about through the development and use of an improved conceptual framework for personnel administration, are:

a. Use of inadequately thought-out organizational systems. In addition to being based on values, practices and goals which have not been clearly defined and which may be inconsistent, these systems tend to ignore in large measure the needs of the personnel who are to man them.

b. Incentives tend to take the form of fulfillment of satiable needs (sometimes termed material rewards) instead of the form of motivations based on task achievement. (See Bernthal's paper, page 83)

c. Personnel policies are commonly prescriptive sets of rules and regulations rather than broad statements based on recognition of the tasks of the school and the needs of personnel who can carry out these tasks.

d. Personnel policies tend to embody internal inconsistencies, usually without recognition of their existence or provision for their resolution. The _intent_ behind each policy should be spelled out.

II. Available Research

Much research needed for the development of a conceptual framework must come from disciplines other than education. A great deal of this research has been done and is available, though not now being applied widely to the development of personnel policies. From the social sciences we have research that relates to the educational needs of society and to the organization and functioning of social institutions such as the schools. From psychology and related disciplines we have a large amount of research-based data on the needs of the people who will make up the personnel of our schools.

Available research may be classed under three headings, as follows:

A. Research on the objectives of education and the tasks of the school. Examples of work done in this include:

   1. _Taxonomy of Educational Objectives_
   2. Research done by Midwest Administration Center of the University of Chicago involving a 'Q Sort' technique test called _Task of Public Education_.

B. Research on social organizations of which school systems are a type. Examples of available reports and summaries are:

   1. Hawthorne Studies
   2. Group Dynamics by Cartwright and Zander
   3. Michigan Studies
   4. Pittsburg Studies
   5. Yale Studies
   6. Griffith, Hemphill and Frederickson. _Administrative Performance and Personality_.
   7. Whisler, Thomas. "The 'Assistant-To' in Four Administrative Settings," _Administrative Science Quarterly_, Vol. 5, No. 2, Sept., 1960.
   8. Peabody, Robert L. "Perception of Organizational Authority," _Administrative Science Quarterly_, Vol. 6, No. 4, March, 1962.

9. Lippit and White. "An Experimental Study of Leadership and Group Life," Readings in Social Psychology, Henry Holt, 1947.
10. Dentler and Mackler. "Tension in a Staff," Originality in Behavioral Science, Vol. 9, No. 1, Jan., 1964.
11. Asch, S. E. "Why Committees Go Wrong," Group Dynamics, Cartwright and Zander.
12. March and Simon, Organization. John Wiley, 1958.
13. Griffiths, Hemphill, Fredericksen. How Do You Select Principals.
14. Sergio, Talacchi, "Organization Size, Individual Attitudes and Behavior," Administrative Science Quarterly, Vol. 5, No. 3, Dec., 1960.
15. Bavelas, Alex. "Communication Chains."

C. Research on psychological needs of individuals and the means of meeting them. Examples of available materials are:

1. Maslow's study of the hierarchy of needs
2. Berelson and Steiner's book on human behavior
3. Herzberg's studies
4. Texas Instruments studies

III. Needed Research

Needed research for the satisfactory development of a conceptual framework for educational personnel administration can obviously be classed under the same three headings as those used for available research listed above. The greatest need is under the third heading, where the surface has only been scratched. However, needed research can be viewed in another way. From this point of view we may describe needed research as follows:

A. Kinds of problems which research should attempt to probe regarding goals and values on which "conceptual framework" is based:

1. Identification and definition of existing educational values.

2. Identification of the sources of values adopted - how did they come to have acceptance?

3. Analysis of value-conflicts.

4. Analysis of value-priorities.

5. Comparative studies of the effects of different personnel policies on achievement of value-goals.

6. Comparative studies of effects of different personnel policies on people--moral and ethical concerns.

B. Studies relating to staff organization necessitated by the tasks of the school system and the nature and needs of individuals employed to carry out these tasks.

1. Development of functional descriptions of tasks.

2. Studies of ways of grouping or clustering specific tasks so as to provide functional "job descriptions" or "role definitions."

3. Studies of requirements imposed by the various roles as to personality, intelligence, skill, knowledge, and other individual characteristics.

4. Studies of conflicts and inconsistencies among roles and their requirements.

5. Studies of feasibility of combining roles in individual jobs or positions and of problems arising therefrom, including studies of ways of regrouping or redefining traditional staff positions so as to minimize need for individuals to assume conflicting roles in carrying out a single job assignment.

6. Studies of demands made upon individuals by the various roles under given conditions, and the relationship of these demands to individual capacity and willingness to meet them in our society.

7. Studies of the needs of personnel capable of fulfilling the requirements of the various school system roles, with particular emphasis on the relationship of the achievement of the tasks involved in the various roles to the meeting of these needs.

C. Decision making.

1. At what levels are decisions affecting personnel administration actually made?

2. What modifications in decision-making procedures are necessitated by the growing "professionalism" of teachers?

3. What are the differential roles of the authorities involved in decision-making for personnel administration?

4. What are the sources of evidence used by administrators in decision-making in personnel administration?

D. Analysis of the motivation-incentive system operating within the school district as a social system.

1. For the several categories of positions (administrators, teachers, pupil personnel service workers, secretaries, food service workers, custodians, etc.) what are the common "dissatisfiers" (a la Herzberg et al) and the differentiated "dissatisfiers"?

2. For the several categories of positions, what are the common and differentiated "motivators" (a la Herzberg et al)?

3. How do the dissatisfiers and motivators vary with such characteristics of the workers as subject matter field, grade level, (where this is a variable); age; sex; marital status; career stage (early, middle, late); proximity to possible desired, or mandatory retirement; district type; community size; and relative professionalism.

4. What is the informal reward system (a la Salton) in contrast with the formal reward system?

E. Conceptual framework.

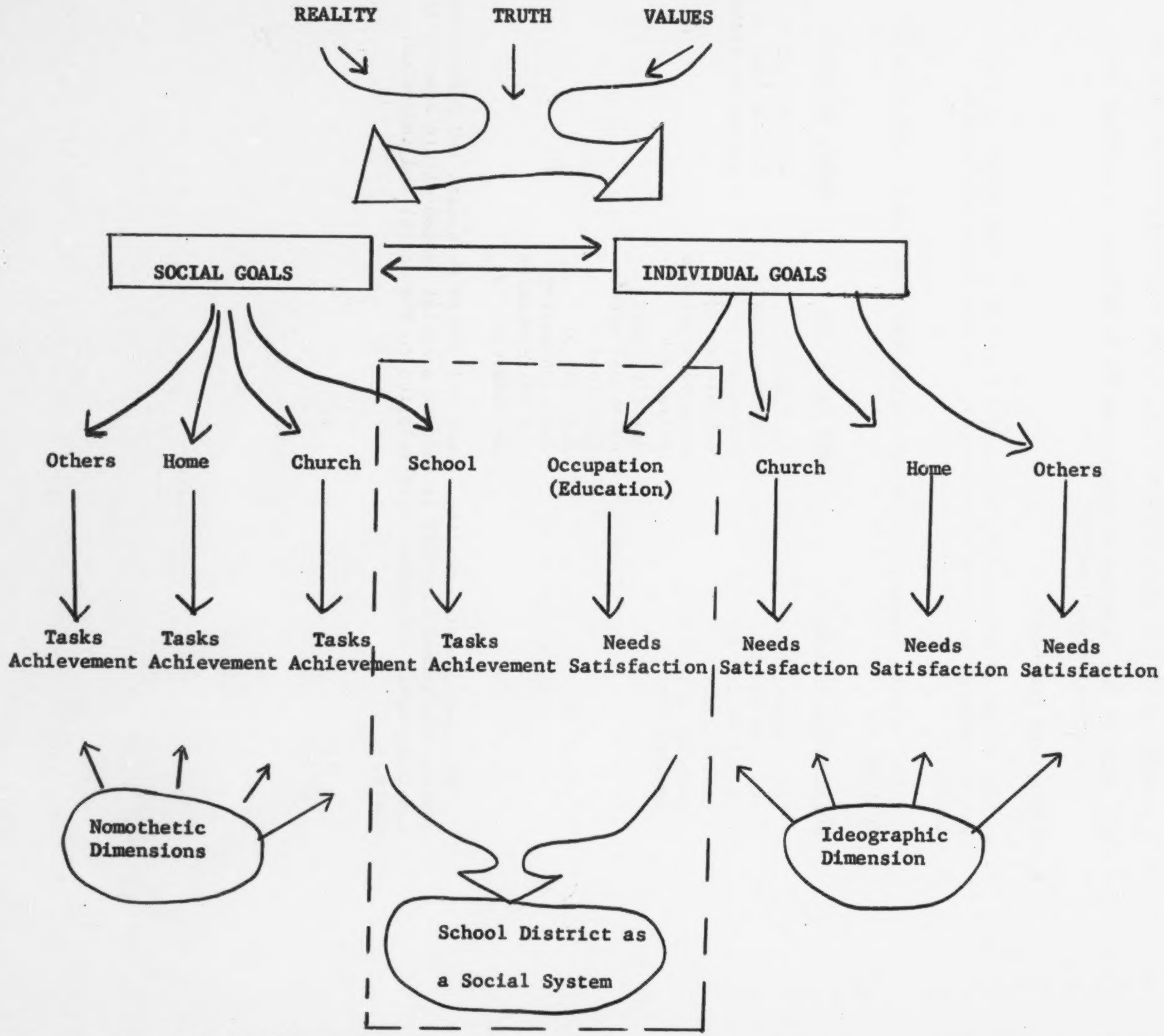
In order to graphically illustrate the conceptual framework within which personnel services are rendered, the following diagram was evolved.

The related research needs were organized under three variables as follows:

Philosophic variables	Task variables	Needs variables
Identification of explicit educational values and goals--their sources, priorities, implications.	Analysis of organizational structure of school system--role expectations, roles, job descriptions, personnel specifications. Analysis of decision-making and policy-making procedures.	Analysis of motivation-incentive system.

The chart relates reality, truth and values to social and individual goals. The school district is seen as a social system within nomothetic and ideographic dimensions with relation to the social and individual goals.

CONCEPTUAL FRAMEWORK


REALITY
TRUTH
VALUES
SOCIAL GOALS
INDIVIDUAL GOALS
Others
Home
Church
School
Occupation (Education)
Church
Home
Others
Tasks Achievement
Tasks Achievement
Tasks Achievement
Tasks Achievement
Needs Satisfaction
Needs Satisfaction
Needs Satisfaction
Needs Satisfaction
Nomothetic Dimensions
School District as a Social System
Ideographic Dimension

APPENDIX II

SEMINAR EVALUATION

Question #1:

Did our first communication contain sufficient information to enable you to determine your interest in it? If not what could we have added?

Responses:

Yes: 32

No: None

Additional comments:

1. "phone call also helpful"
2. "general area was well outlined" "led one to do some previous thinking"

Question #2:

What did you understand the objectives of the seminar to be from our early communications?

Responses:

1. "To identify problems in school personnel administration which were in need of research for solution."
2. "To find ways of closing the gap between research and practice in personnel administration."
3. "To explore liaison techniques between practitioners and researchers in personnel administration."
4. "To suggest areas in personnel administration in need of improvement."
5. "As stated"
6. "Share current research in personnel administration."

Number Responding:

No comment - 5
1. 7
2. 8
Both 1 and 2 - 2
3. 4
4. 2
Both 2 and 4 - 1
5. 3
6. 2

Question #3:

To what extent did our follow-up communications provide for your information and understanding? If inadequate or partially so, what additional information would you have liked us to furnish?

Responses:

"Very helpful": 7
"Helpful": 19
"No decision": 8
"Unhelpful": 1
"Very unhelpful": None

Additional Information Requested:

1. "Clarify role of panels"
2. "Needed consultant papers in advance"
3. "Selected literature needed earlier"

Question #4:

Was our information sufficient and in time to permit satisfactory local and travel arrangements on your part? If inadequate, what other information was needed?

Responses:

Excellent: 10
Good: 23
Fair (Adequate): 2
Poor:

Other Suggestions:

1. "Repayment of travel expense procedure unclear"
2. "Limits on food costs should have been made"
3. "Each person should have been responsible for his expenses"

Question #5:

Please react to our services for lodging and food. How could they have been improved? Specific suggestions?

Responses:

Excellent: 13
Very good: 6
O. K.: 10
Poor: 2
No comment: 4

Question #6:

Please react to the Seminar (1) organization and (2) content in terms of their contributing to the seminar objectives.

Responses on Organization:

Excellent: 16
Good: 19
Fair: 2
Poor:
No comment: 1

Responses on Content:

Appropriate: 15
No comment: 10
Inappropriate: -

Other Comments:

1. "Content relevant and important"
2. "Needed initial paper on the specifics of personnel administration"
3. "Invite a few teachers"

Question #7:

To what extent did consultants' papers lay the foundation for and stimulate panel discussion?

Responses:

Excellent: 12
Good: 7
O. K.: 11
Fair: None
Poor: None
No Comment: 3

Other Comments:

1. "Provided good frame of reference"
2. "Highlight of the seminar"
3. "Should have read papers beforehand"

Question #8:

Comment upon the effectiveness of the services of consultants.

Responses:

Highly effective: 17
Somewhat effective: 11
Neither effective nor ineffective: 2
Somewhat ineffective: none
Highly ineffective: none
No comment: 4

Other Comments:

1. "Seminar successful because of them"
2. "Would have been lost without them"
3. "Kept us on the track"
4. "Very strong people"

Question #9:

Please react to the panel activities in terms of their achieving the seminar objectives.

Responses:

Excellent: 2
Very good: 21
Fair: 7
Poor: 1
No comment: 2

Other Remarks:

1. "Not enough time"
2. "Good interaction"
3. "Our panel needed more research-oriented people"
4. "Needed periodic critiques"

Question #10:

Did the revolving chairmanship add or detract from panel production? Would a single chairman have served more adequately?

Responses:

Added: 27
Detracted: 6
No comment: 2
In favor of single chairman: 6

Other Remarks:

1. "Avoided domination, greater participation"
2. "Broadened our scope"
3. "Most challenging and created leadership"

Question #11:

Please react to the time factor as related to the seminar. Was a week long enough? Too long? Were the days well organized? Too crowded and long?

Responses:

Too long: 5
Sufficient: 20
Too short: 9

Question #12:

What were the principal strengths of the seminar? The principal weaknesses? How could it have been improved?

Strengths:

1. Opportunity to work with other people in the field.
2. Interaction was rewarding, integration of expertise good.
3. Consultants' papers and services.
4. Rotation of chairmanship.
5. High quality of participants, talent and experience.
6. Practitioner contact with theorists.
7. Choice of seminar topic.
8. Personally stimulating and inspiring.
9. Organization and arrangements.

Weaknesses:

1. Not enough time, pressure excessive.
2. More research persons should have been provided to panels.
3. Preparation for seminar deficient (by participants).
4. Fiscal planning poor.
5. Too much feedback of group progress reports (have only final).
6. Reports unnecessary so often.
7. Orientation of panels and communication.
8. Lack of visual aids in panel presentations.
9. Practitioners not research-oriented, others too academic.

Suggestions for improvement:

1. Provide stenographers to panels.
2. Recommend two-four weeks with 3-day follow-up.

3. Better explanation of purposes initially.
4. Avoid "lumping" funds.
5. Recorders should be more competent.
6. More time in panels.
7. Have reports on existing research.
8. Need provision for creative brainstorming.
9. Chalkboards needed in panels.
10. Warmer weather.
11. Provide additional research people to the panels.
12. Consultants should be free to serve all panels.
13. Arrange a pre-meeting of practitioners to define their role.

Question #13:

Please let us have your general reaction to the entire project that would help us in future planning. Would you attend another such activity if it were available?

General Reactions for Future-Planning:

1. Involve personnel (e.g. CPEA) who can implement research.
2. Follow-up conference in 6 months or so for full value.*
3. Provide a series of seminars on same topic (e.g. annual follow-up).
4. Future seminars might be conference type for other practitioners.
5. Continue the attack on the gap.
6. Participants should receive summaries and conclusions.
7. Organize centers for continued study.

*Suggestions range from involving a core of central personnel to full group (majority recommend a selected group from the total seminar).

Responses (Attend again?):

Yes: 30
No: None
Don't know: 2
No comment: 3

Question #14:

As a result of your experience in the seminar, how do you now view the function of research in the personnel field? Please give a specific example.

Comments:

1. Greater awareness of the kinds and amounts of research.
2. Urgent need for continual study.
3. Promising areas need designation to the "man in the field".
4. Objective area problem recognition vital.
5. Research in how to apply research necessary.

6. Need a vehicle for making studies more readily available.
7. Communication channels must be developed (e.g. journal).
8. Research needs to be broader in scope and on-going.
9. Practitioners need help from researchers !

**Much current research is not used.
*Collaborative efforts must transcend institutional lines.

Views on Function of Research:

1. Ultimately the improvement of instruction.
2. Identification of favorable procedures and environments.
3. In-service training for personnel administrators.
4. Identify potential trouble and guide remedial action.
5. Provide technical information on tenability of practices.
6. Spearhead new vistas.
7. Assist in the applications of theory.
8. Objectify administrative relationships and demands.
9. Foreordain-change (change-agent) for selection.
10. Study, evaluate, establish and classify disseminations of the field.
11. Not theory--practice--research but research, but research--theory--practice.
12. Support and justify current practices.
13. Determine causal aspects of problems.
14. Reduce high incidence of "flying by the seat of our pants."
15. Establish practices out of which come theories.
16. To discover the unknown.
17. Re-examination of the responsibility of the administrator.

Question #15:

Would you be willing to engage in some type of personnel action research (appropriate to your own situation) in cooperation with the University and other school systems? What particular area would you be most interested in researching?

Responses:

Yes: 25
No: 1
No comment: 9

Expressed Areas of Interest:

1. Staffing requirements in professional positions of administration.
2. Psychological aspects of administration.
3. Tracing etiology of values and goals.
4. Legal aspects of personnel administration.
5. Staff utilization and participation in current developments, leadership, etc.
6. The role of the administrator in professional associations.
7. Employee organizations.
8. Teacher evaluation.
9. Inservice training.
10. Selection, training, and appraisal of administrative staff.
11. Case studies.
12. Administrative personality.
13. Morale of teachers.

APPENDIX III

RESEARCH AND DEVELOPMENT ACTIVITY STAFF

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